Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
1.96
R31Fso

U. S. DEPT. OF AGR... LIBRARY
NATIONAL ...
RECEIVED
JAN 23 1973
PROCUREMENT SECTION
CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK FOR OREGON

Prepared by

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

OREGON STATE UNIVERSITY

and

STATE ENGINEER of OREGON

Data included in this report were obtained by the agencies named above in cooperation with other Federal, State and private organizations.

AS OF

JAN. 1, 1973

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

COVER PHOTO NUMBER ORC-286-4

WATER SUPPLY OUTLOOK FOR OREGON

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

JANUARY 8, 1973

Issued by

KENNETH E. GRANT
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

A.J. WEBBER
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
PORTLAND, OREGON

In Cooperation with

G. BURTON WOOD
DIRECTOR
OREGON AGRICULTURAL
EXPERIMENT STATION

CHRIS L. WHEELER
STATE ENGINEER
STATE OF OREGON

Report prepared by

TOMMY A. GEORGE, Snow Survey Supervisor
and
HOWARD M. VANCE, Assistant Snow Survey Supervisor
SOIL CONSERVATION SERVICE
1218 S W WASHINGTON ST
PORTLAND, OREGON 97205

TABLE OF CONTENTS

PAGE

WATER SUPPLY PROSPECTS FOR OREGON.....(MAP)..... FACING PAGE 1

WATER SUPPLY OUTLOOK FOR OREGON..... 1

DETAILED WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

OWYHEE, MALHEUR..... AREA 1

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA..... AREA 2

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY..... AREA 3

UPPER JOHN DAY..... AREA 4

UPPER DESCHUTES, CROOKED..... AREA 5

HOOD, MILE CREEKS, LOWER DESCHUTES..... AREA 6

LOWER COLUMBIA..... AREA 7

WILLAMETTE..... AREA 8

ROGUE, UMPQUA..... AREA 9

KLAMATH..... AREA 10

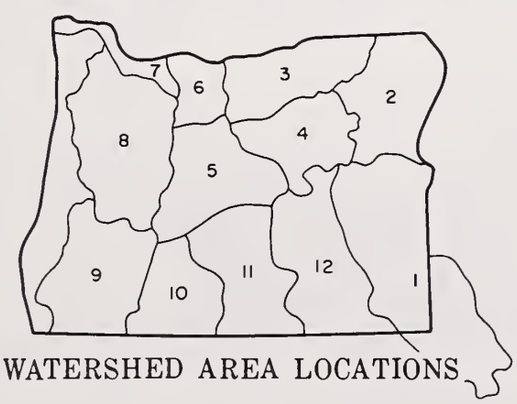
LAKE COUNTY, GOOSE LAKE..... AREA 11

HARNEY BASIN..... AREA 12

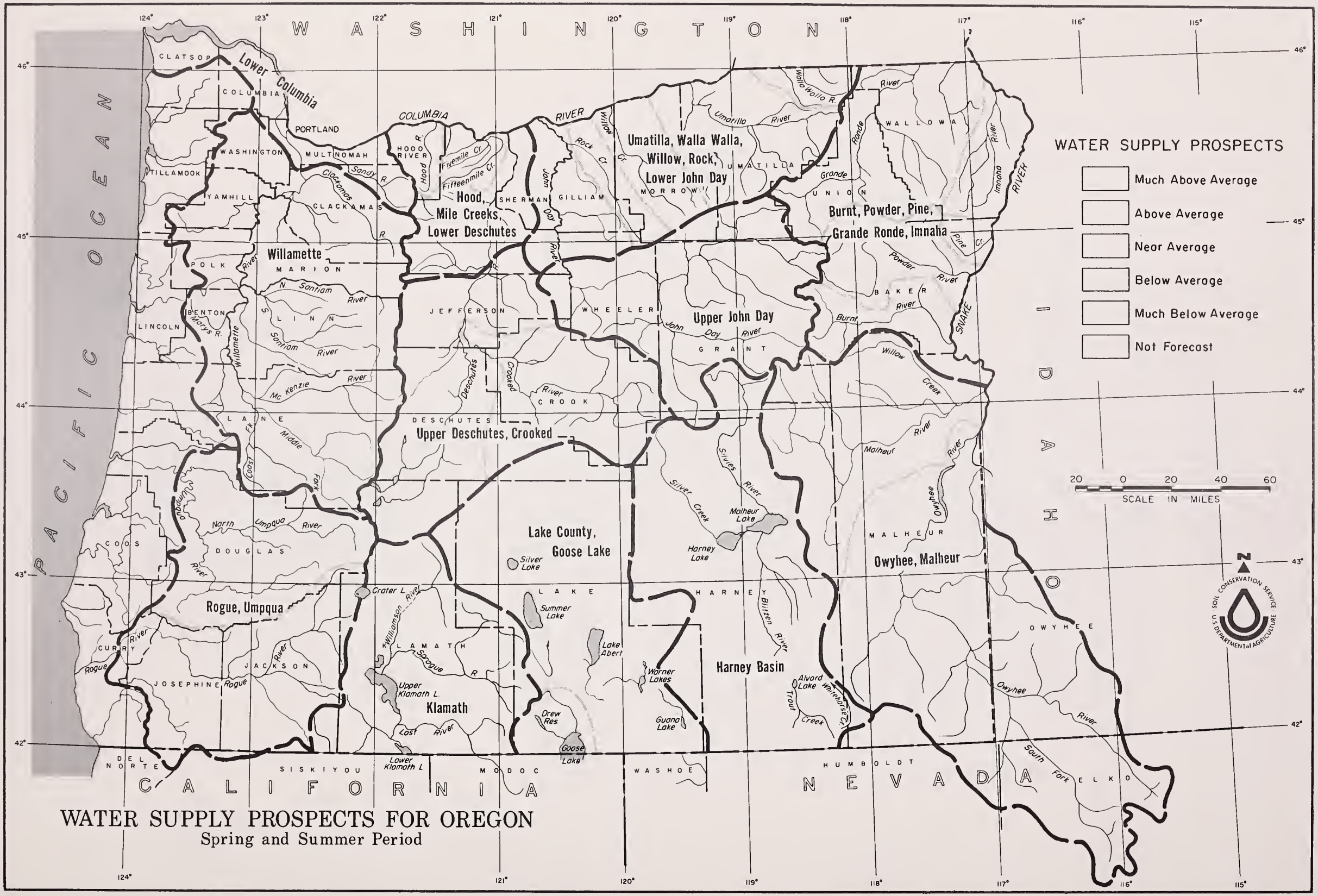
BASIC DATA SUPPLEMENTS
I SNOW
II SOIL MOISTURE
III PRECIPITATION

MAP AND INDEX OF OREGON SNOW COURSES.....(MAP)

LIST OF COOPERATORS.....INSIDE BACK COVER



WATERSHED AREA LOCATIONS



WATER SUPPLY PROSPECTS FOR OREGON
Spring and Summer Period

U. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

WATER SUPPLY OUTLOOK for OREGON

JANUARY 1, 1973

The water supply outlook for Oregon varies from poor to average. The snowpack is generally 60 percent of average over most of the State--down markedly from the record amounts of the last two years. The bright spots in the State are the Owyhee and Malheur drainages which have 140% and 100% snow cover respectively. Early winter precipitation was near average over the state. Reservoir storage is above average and will provide good water supplies, but the prospects for water users dependent upon direct diversion are fair to poor in all but the southeast corner of the state.

SNOW COVER

The snow cover, as indicated by a limited number of measurements, ranges from 140%, 100%, and 90% respectively on the Owyhee, Malheur and Upper John Day drainages, to lows of 15% on Clackamas River and McKay Creek Drainages. Snow cover on the west side of the Cascades varies from 20% to 50% of average. The east side of the Cascades has from 50 to 70% snow cover. The Blue Mountains have 40 to 80% snow cover at the medium and higher elevations. Snow cover in the southern part of the state generally ranges from 25 to 50% of average, except for the 75% cover on the Rogue Drainage.

SOIL MOISTURE

The moisture content of the soils are near average. They should absorb average amounts of snowmelt water and winter rainfall.

PRECIPITATION

The November-December precipitation varied from 78% in the Klamath and Rogue-Umpqua Basins to 128% on the Owyhee and Malheur drainages. The remainder of the state was near average. Rain and warm weather during mid-December combined to remove the early season snowpack. Most of the snow that was measured on January 1 fell during the last few days of December.

continued on next page

continued --

RESERVOIR STORAGE

Reservoir storage is slightly less than it was one year ago but is still above average. The total usable content of 21 reservoirs in the state is 130% of average or 64% of capacity. If the present conditions persist through the remainder of the year, some reservoirs may not fill this year.

STREAMFLOW

Streamflow has varied throughout the state. It was best on the Owyhee which was 21% above average during December. The rest of the streams in the state ranged from a low of 34% on the Chewaucan up to 100% for the Deschutes at Moody. Representative streamflow for the October-December period is as follows:

STREAM	OCT.-DEC. STREAMFLOW OCT.-DEC. STREAMFLOW As Percent of Average
Owyhee Net Inflow	137
Chewaucan near Paisley	55
John Day at Service Creek	69
Deschutes at Moody	105
Grande Ronde at La Grande	73
Willamette, Middle Fork below N. Fk.	68
Umpqua near Elkton	52
Rogue at Raygold	71
Klamath Lake net Inflow	99

This report contains data furnished by the Oregon State Engineer, U. S. Geological Survey, NOAA National Weather Service, and other cooperators.

cooperators.

U.S. DEPARTMENT of AGRICULTURE
SOIL CONSERVATION SERVICE
CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY

WATER SUPPLY OUTLOOK
OWYHEE, MALHEUR WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

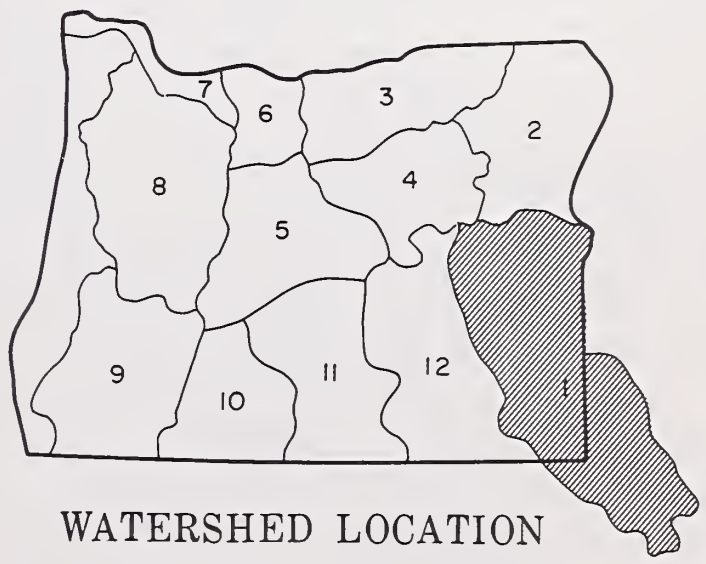
GENERAL OUTLOOK

THE WATER SUPPLY FORECAST FOR THE OWYHEE-MALHEUR WATERSHEDS IS AVERAGE TO ABOVE AVERAGE FOR THE 1973 SEASON. THE SNOWPACK VARIES FROM 70 PERCENT OF AVERAGE ON JORDAN CREEK TO 140 PERCENT ON THE UPPER OWYHEE DRAINAGES AND 100 PERCENT ON THE MALHEUR DRAINAGE. PRECIPITATION DURING DECEMBER WAS 130 PERCENT OF AVERAGE AND FOR THE NOVEMBER-DECEMBER PERIOD 128 PERCENT OF AVERAGE. THE MOISTURE CONTENT OF THE WATERSHED SOILS IS 70 PERCENT OF AVERAGE. RESERVOIR STORAGE IS EXCELLENT AT 51 PERCENT ABOVE AVERAGE, DUE TO CARRYOVER STORAGE FROM LAST YEAR AND THE OCTOBER-DECEMBER STREAMFLOW WHICH HAS BEEN 40 PERCENT ABOVE NORMAL.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Boulder Creek Bully Creek Cow Creek Jordan Creek Jordan Valley Irrig. Dist. McDermitt Creek Oregon Canyon Creek Owyhee Project Succor Creek Tenmile Creek Vale-Oregon Irrig. Dist. Warmsprings Irrig. Dist. Willow Creek (Reservoired)	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average +
Bully Creek at Warmsprings	c				
Jordan Creek above Lone Tree Creek	c				
Malheur near Drewsey	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
Malheur, North Fork at Beulah	c				
Owyhee Reservoir net Inflow	c				

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee Near Rome	Forecasts begin in the February 1 report which will be issued about February 9, 1973.		

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Antelope	70.0	1.9	5.7	4.0
Beulah Reservoir	60.0	23.5	25.5	17.4
Bully Creek	30.0	5.6	7.2	- -
Owyhee	715.0	512.9	526.2	330.8
Warmsprings	191.0	88.4	110.7	62.0

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	THIS YEAR'S MOISTURE as PERCENT OF: Average i
Jordan Creek	-	-	-
Malheur River	1	103	66
Owyhee River	3	100	73

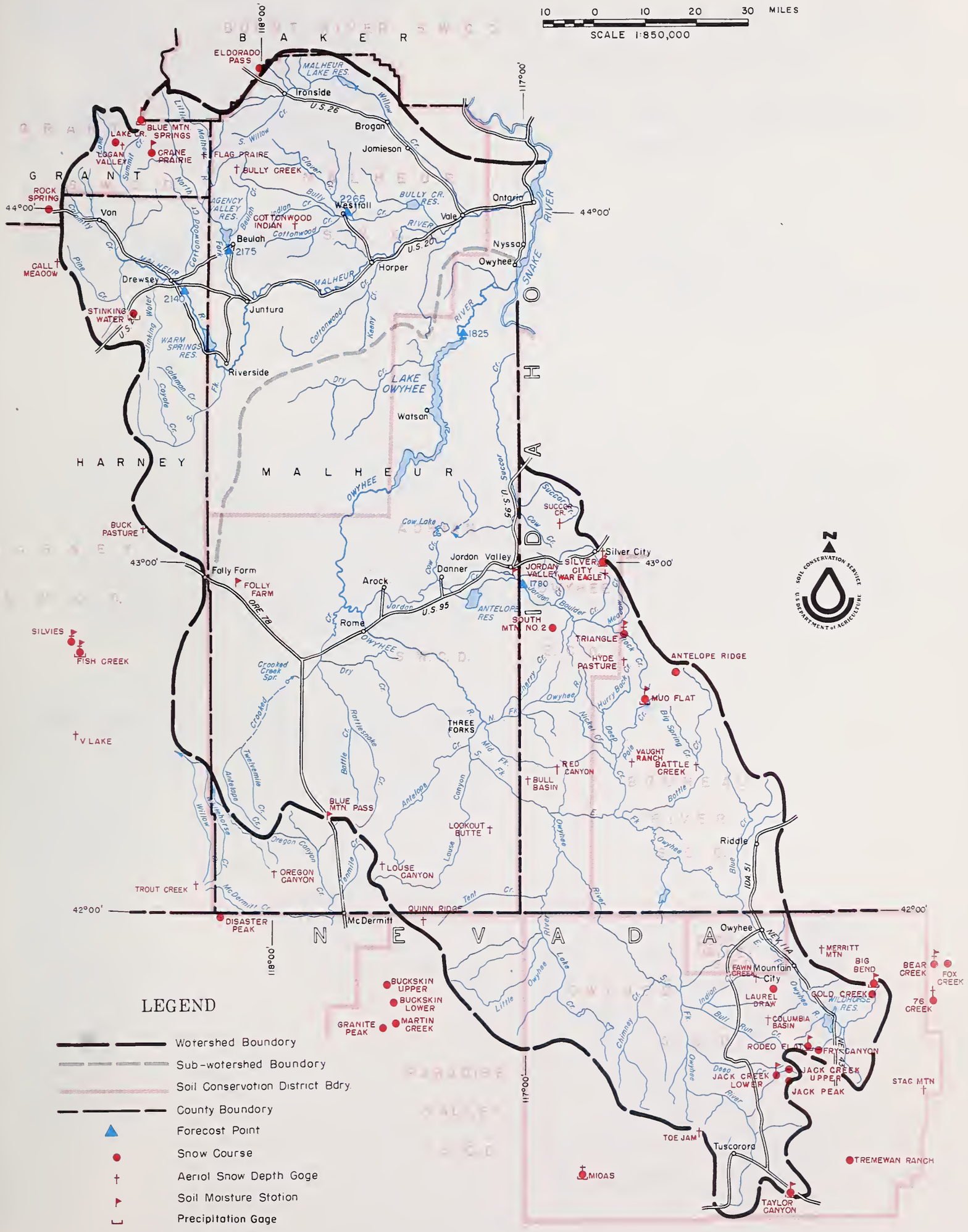
SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
Jordan Creek	2	25	70
Malheur River	4	40	100
Owyhee River	3	50	140

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (l) Ground measurement. (m) Average for 5 or more years in base period.

OWYHEE, MALHEUR WATERSHEDS



WATER SUPPLY OUTLOOK
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS
OREGON

as of

JANUARY 1, 1973

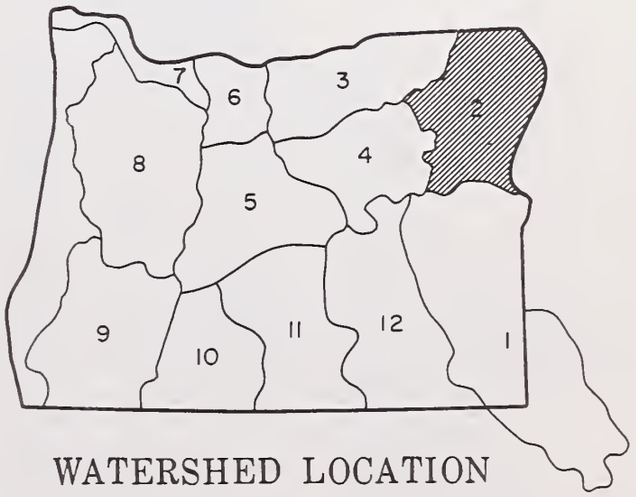
U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

UNDER THE PRESENT CONDITIONS THE WATER SUPPLY OUTLOOK FOR THE BURNT, POWDER, AND GRANDE RONDE RIVER VALLEYS IS FAIR TO POOR FOR WATER USERS DEPENDENT ON DIRECT DIVERSION. THE MOUNTAIN SNOWPACK IS 40 TO 60 PERCENT OF AVERAGE. PRECIPITATION DURING DECEMBER WAS 114 PERCENT OF AVERAGE AND 103 PERCENT FOR THE NOVEMBER-DECEMBER PERIOD, BUT THE RAIN MELTED OFF SOME OF THE ACCUMULATED SNOWPACK. MOISTURE STORED IN THE MOUNTAIN WATERSHED SOILS IS SLIGHTLY ABOVE AVERAGE. RESERVOIRS IN THE AREA ARE STORING 77 PERCENT OF AVERAGE AMOUNTS FOR JANUARY FIRST. THE GRANDE RONDE AT LA GRANDE FLOWED 71 PERCENT OF AVERAGE DURING DECEMBER.

WATER SUPPLY OUTLOOK Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Alder Slope Baker Valley Big Creek Clover Cr. (nr. N. Powder) Cove Durkee Eagle Valley Elgin Enterprise-Joseph Hereford-Bridgeport Imnaha River LaGrande-Island City Lostine-Wallowa No. Powder River-Wolf Creek Pine Valley Powder River-Elk Creek Summerville Sumpter Valley Union-Hot Lake Unity	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average †
Bear near Wallowa	c				
Burnt near Hereford	c				
Catherine near Union	c				
Eagle Creek above Skull Creek	c				
Grande Ronde at La Grande	c				
Hurricane near Joseph	c				
Imnaha at Imnaha	c				
Lostine near Lostine	c				
Powder near Sumpter	c				
Wallowa, East Fork near Joseph	c				

NOTE: FORECASTS BEGIN ON FEB. 1, 1973.

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Phillips Lake	73.5	44.5	48.8	- -
Thief Valley	17.4	17.4	17.4	- -
Unity	25.2	7.9	8.6	6.5
Wallowa Lake	37.5	12.9	19.9	20.5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
Burnt River	3	35	55
Grande Ronde River above La Grande	4	10	40
Powder River	2	25	60
Wallowa, Imnaha, Catherine Creek	-	-	-

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	THIS YEAR'S MOISTURE as PERCENT OF: Average i
Burnt, Powder	2	94	112
Grande Ronde, Catherine Creek, Imnaha River	2	85	101

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Molsture Stotion
- Aerial Snow Depth Gage
- Precipitation Gage

WATER SUPPLY OUTLOOK
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS
OREGON

as of

JANUARY 1973

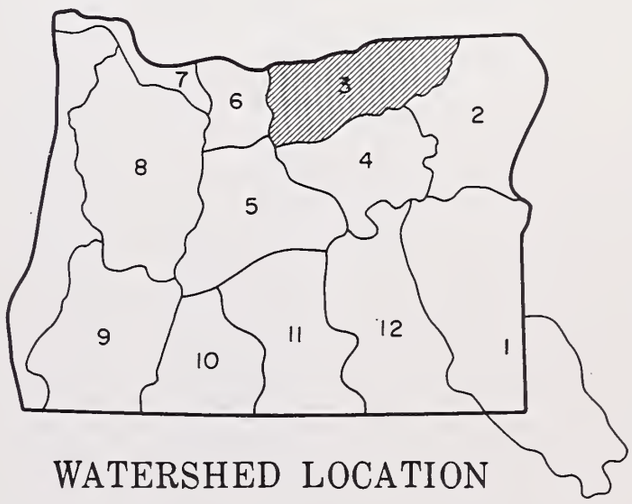
U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

UMATILLA, MORROW AND GILLIAM COUNTY WATER USERS WILL HAVE BELOW AVERAGE TO POOR WATER SUPPLIES IF PRESENT CONDITIONS PERSIST. THE MOUNTAIN SNOWPACK VARIES FROM 15 PERCENT ON THE McKAY CREEK DRAINAGE TO 80 PERCENT ON THE WALLA WALLA RIVER DRAINAGE. PRECIPITATION DURING DECEMBER WAS 126 PERCENT OF AVERAGE AND 91 PERCENT OF AVERAGE FOR THE NOVEMBER-DECEMBER PERIOD, BUT THE RAINS WERE WARM AND MELTED MUCH OF THE EARLY ACCUMULATED SNOWPACK. MOUNTAIN SOILS STORED SLIGHTLY ABOVE AVERAGE AMOUNTS OF WATER. COLD SPRINGS AND McKAY RESERVOIRS WERE STORING 54 PERCENT OF AVERAGE AMOUNTS OF WATER ON JANUARY 1 AND 30 PERCENT OF THE AMOUNT STORED LAST YEAR ON THE SAME DAY.

WATER SUPPLY OUTLOOK Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Walla Walla River, N. Fork Walla Walla River, S. Fork Walla Walla River, Main Walla Walla River, Little Couse Creek Dry Creek Pine Creek Umatilla River, Main Wildhorse Creek Umatilla R. (Cold Springs Reservoir) Umatilla R. (McKay Res.) McKay Creek Birch Creek Butter Creek Willow Creek Rhea Creek Rock Creek (John Day Tributary)	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average +
Birch Creek at Rieth	c				
Butter Creek near Pine City	c				
McKay near Pilot Rock	c				
Umatilla near Gibbon	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
Umatilla at Pendleton	c				
Walla Walla, North Fork near Milton	c				
Walla Walla, South Fork near Milton	c				

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	Forecasts begin in the February 1 report which will be issued about February 9, 1973.		

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Cold Springs	50.0	4.3	21.5	20.2
McKay	73.8	15.1	44.0	16.1

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	THIS YEAR'S MOISTURE as PERCENT OF: Average i
Umatilla, Walla Walla, McKay Creek	3	89	107

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
McKay Creek	2	5	15
Umatilla River	3	15	70
Walla Walla River	2	20	80

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station
- Precipitation Gage

Area 4

WATER SUPPLY OUTLOOK
UPPER JOHN DAY WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

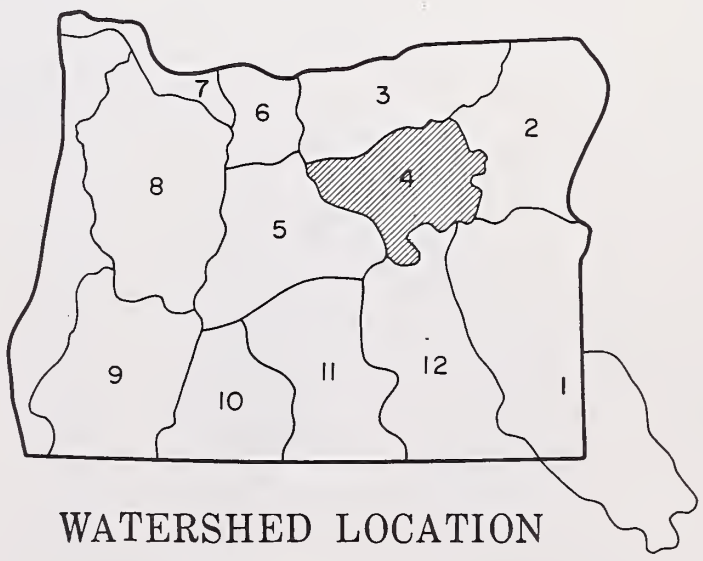
GENERAL OUTLOOK

THE WATER SUPPLY OUTLOOK FOR THE UPPER JOHN DAY BASIN IS AVERAGE TO FAIR UNDER THE PRESENT CONDITIONS. THE MOUNTAIN SNOWPACK IS 45% ON THE NORTH FORK WATERSHEDS AND 90 PERCENT ON THE MAIN STEM OF THE JOHN DAY. PRECIPITATION DURING DECEMBER WAS 107 PERCENT OF AVERAGE AND 88 PERCENT FOR THE NOVEMBER-DECEMBER PERIOD. THE MOUNTAIN SOIL MOISTURE WAS NEAR AVERAGE. THE JOHN DAY AT SERVICE CREEK FLOWED 57 PERCENT OF AVERAGE DURING DECEMBER.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Beech Creek Beech Creek-Fox-Long Cr. Bridge-Mountain Creeks Camas Creek Cherry Creek Indian-Pine Creeks John Day River, Main Fork John Day River, Mid. Fork John Day River, N. Fork John Day River, S. Fork Monument-Kimberly Strawberry Creek	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	THIS YEAR FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average †
Camas Creek near Ukiah	c				
John Day at Prairie City	c				
John Day, Middle Fork at Ritter	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
John Day, North Fork at Monument	c				
Strawberry near Prairie City	c				

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	Average i
John Day abv. Dayville	6	107	100
John Day, North Fork	2	99	101

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

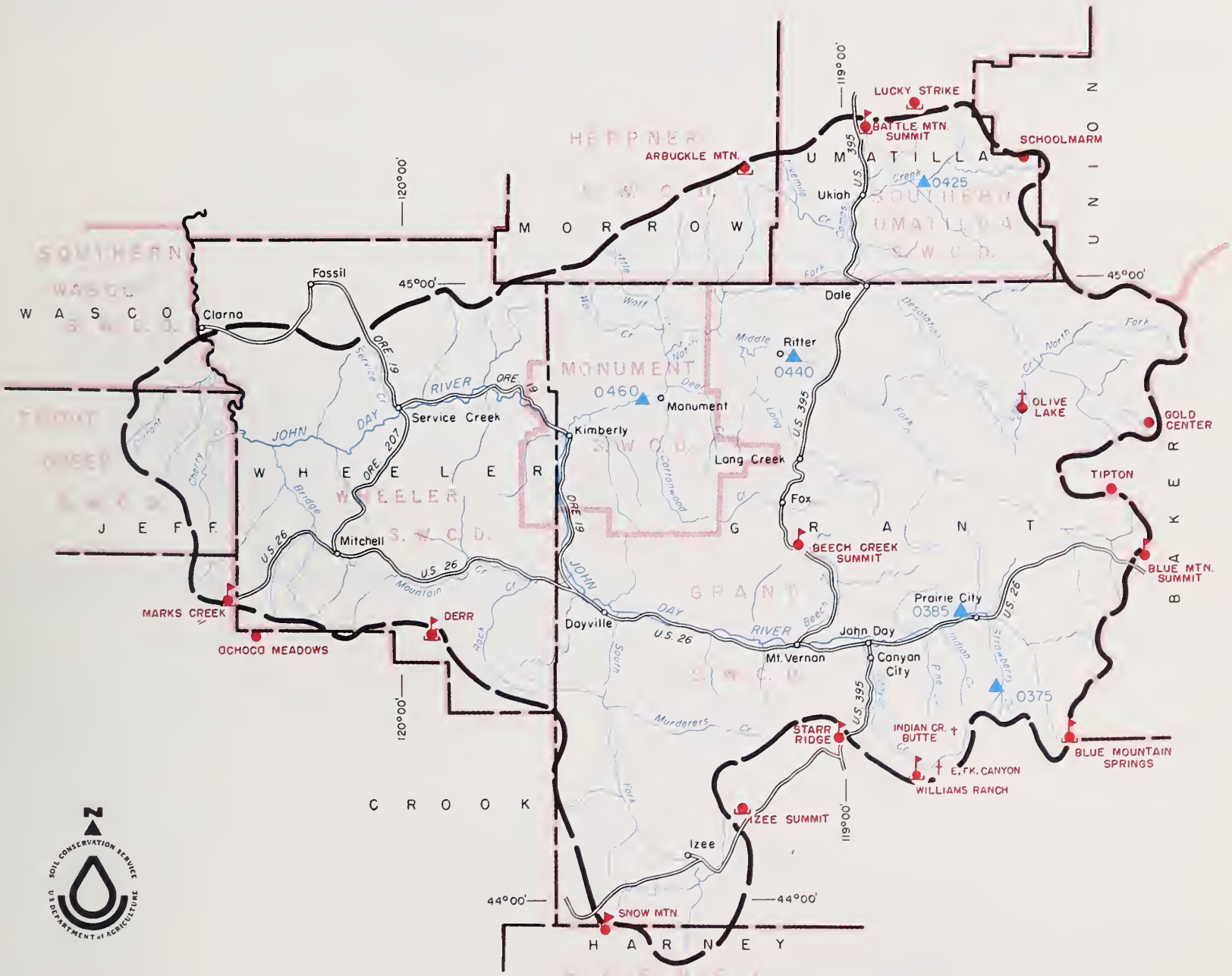
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	Average i
John Day, North Fork	3	30	45
John Day abv. Dayville	3	35	90

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER JOHN DAY WATERSHEDS

10 0 10 20 30

SCALE 1:650,000



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT of AGRICULTURE

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- ● Snow Course
- ⚑ Soil Moisture Station
- † Aerial Snow Depth Gage
- ⌴ Precipitation Gage

OR-4c

WATER SUPPLY OUTLOOK
UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

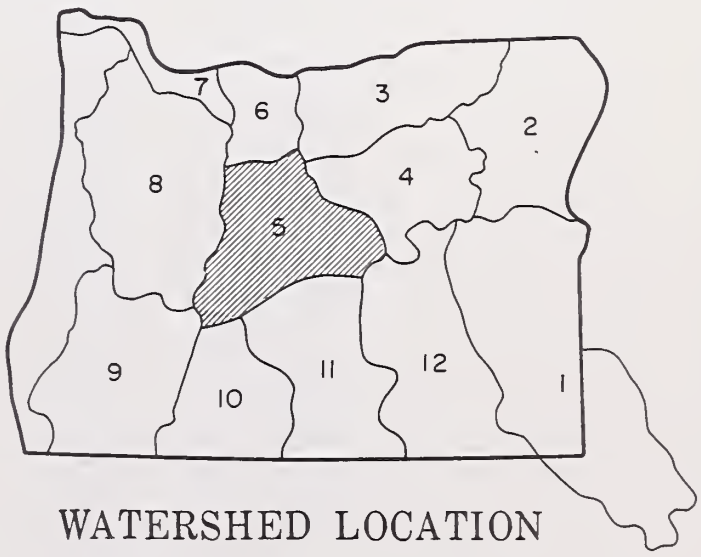
GENERAL OUTLOOK

CENTRAL OREGON WATER USERS WHO ARE DEPENDENT ON DIRECT DIVERSIONS WILL HAVE BELOW AVERAGE WATER SUPPLIES DURING 1973 IF PRESENT CONDITIONS CONTINUE. USERS WITH STORED WATER SUPPLIES AVAILABLE TO THEM SHOULD EXPERIENCE AVERAGE CONDITIONS THIS NEXT SUMMER. THE MOUNTAIN SNOWPACK RANGES FROM 55 PERCENT OF AVERAGE ON THE LITTLE DESCHUTES TO 70 PERCENT OF AVERAGE ON THE DESCHUTES ABOVE WICKIUP, TUMALO AND SQUAW CREEKS. PRECIPITATION DURING DECEMBER WAS 128% OF AVERAGE AND 94% OF AVERAGE FOR THE NOVEMBER-DECEMBER PERIOD. THE SOIL MOISTURE WAS NEAR AVERAGE. WATER STORED IN RESERVOIRS WAS 27 PERCENT ABOVE AVERAGE ON JANUARY 1. THE DESCHUTES AT MOODY FLOWED 100 PERCENT OF AVERAGE DURING DECEMBER.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Arnold Irrigation District Bear Creek Beaver Creek Camp Creek Central Ore. Irrig. Dist. Crooked River Deschutes River Hay-Trout Creeks Lone Pine Irrig. Dist. Mill Creek North Unit Irrig. Dist. Ochoco Creek Sisters Irrigation Dist. Snow Creek Irrig. Dist. Squaw Creek Irrig. Dist. Swalley Ditch Tumalo Project Walker Basin Irrig. Dist.	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average +
Beaver Creek near Paulina	c				
Crane Prairie Reservoir total Inflow	c				
Crescent at Crescent Lake	c				
Crooked near Post	c				
Deschutes at Benham Falls	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
Deschutes below Snow Creek	c				
Deschutes, Little near La Pine	c				
Ochoco Reservoir net Inflow	c				
Odell near Crescent	c				
Squaw near Sisters	c				
Tumalo near Bend	c				

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	Forecasts begin in the February 1 report which will be issued about February 9, 1973.		
Deschutes at Bend			
Little Deschutes near La Pine			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Crane Prairie	55.3	51.0	48.9	40.2
Crescent Lake	86.9	76.3	64.8	44.3
Ochoco	47.5	25.0	27.9	19.2
Prineville	153.0	106.1	93.0	103.5
Wickiup	200.0	177.6	180.9	134.6

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	THIS YEAR'S MOISTURE as PERCENT OF: Average i
Crooked R., Upper Deschutes River	1	97	99

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
Crooked, Ochoco	1	0	0
Deschutes abv. Wickiup	1	40	70
Little Deschutes	2	30	55
Tumalo & Squaw Crs.	1	40	70

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

UPPER DESCHUTES, CROOKED WATERSHEDS

10 0 10 20 30
SCALE 1:750,000

SCALE 1:1,500,000

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course
- Soil Moisture Station
- Precipitation Goge
- Radio Telemetry
- Temperature Goge

SOIL CONSERVATION SERVICE · U.S. DEPARTMENT of AGRICULTURE

N

Shaniko
Antelope
Warm Springs
Madras
Prineville
Redmond
Sisters
Bend
Millicon
Brothers
Hampton
Lopine
Crescent
Chemult
Post
Paulina
Suplee

MARION
JEFFERSON
WASCO
WHEELER
GRANT
DESCHUTES
LAKE
HARNEY
KLAMATH
LAKE
DOUGLAS

HOGG PASS
MARKS CREEK
DERR
OCHOCO MEADOWS
TAMARACK
THREE CREEKS BUTTE
THREE CREEKS MEADOWS
NEW DUTCHMAN FLAT NO 2
HUNGRY FLAT
TANGENT
SNOW MOUNTAIN
IRISH TAYLOR
WALDO LAKE
CALD-WELL RANCH
CASCADE SUMMIT
NEW CRESCENT L.
WILLAMETTE PASS
CHEMULT

0750
0730
0645
0500
0535
0630
0555
0600
0848
0795
0780

PELTON RES.
ROUND BUTTE RES.
OCHOCO RES.
PRINEVILLE RES.
CRANE PRAIRIE RES.
WICKIUP RES.
CRESCENT LAKE RES.

Shitike Cr.
Warm Springs R.
Whitewater River
Seekseekwa Cr.
Jefferson Cr.
Metolius R.
Fly Cr.
Canyon Cr.
First Cr.
Squaw Cr.
Tumalo Cr.
Elk Lake
Lava Lake
Cultus Lake
L. Cultus Lake
Odell L.
Odell Cr.
Davis Lake
Summit Lake
Big Marsh Cr.
Crescent Cr.
Little Deschutes River
Deschutes River
Crooked River
Mud Spring Cr.
Willow Cr.
Hay Cr.
Antelope Cr.
Trout Cr.
Lytle Cr.
McKay Cr.
Mill Cr.
Ochoco Cr.
Marks Cr.
North Fork Crooked River
Wolf Cr.
Beaver Cr.
Grindstone Cr.
Bear Cr.
Camp Cr.
South Fork Twelvemile Cr.
Twelvemile Cr.
S. Fk. Twelvemile Cr.
Paulina Cr.
East Lake
Paulina Lake

U.S. 26
U.S. 97
U.S. 20
U.S. 126
ORE 31

45°00'
44°00'
122°00'
121°00'
120°00'

Area 6

WATER SUPPLY OUTLOOK
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

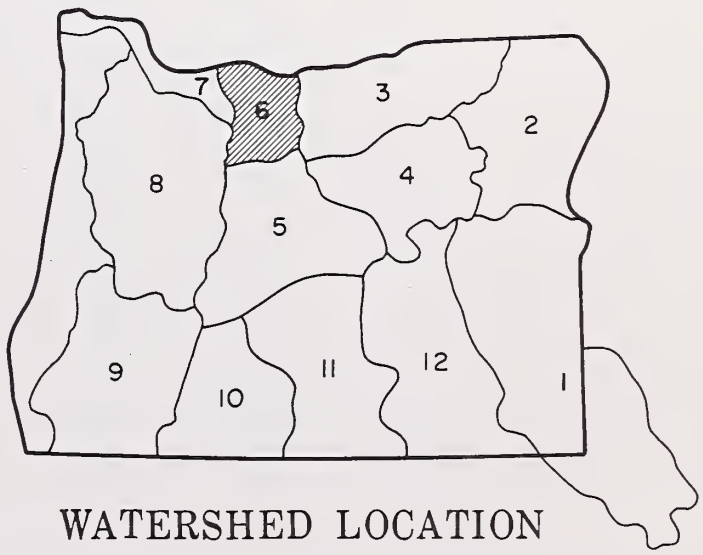
GENERAL OUTLOOK

UNDER THE PRESENT CONDITIONS BELOW AVERAGE WATER SUPPLIES ARE IN PROSPECT FOR THE 1973 SEASON IN THE HOOD RIVER AND LOWER DESCHUTES WATERSHEDS. THE MOUNTAIN SNOWPACK IS 40 TO 50 PERCENT OF AVERAGE AND 80 PERCENT LESS THAN LAST YEAR'S NEAR RECORD AMOUNTS. PRECIPITATION WAS 118 PERCENT OF AVERAGE DURING DECEMBER, AND 86 PERCENT OF AVERAGE FOR THE NOVEMBER-DECEMBER PERIOD. THE RAINS WERE WARM, HOWEVER, AND MELTED MUCH OF THE EARLY ACCUMULATION OF SNOW. STORAGE IN CLEAR LAKE (WASCO RESERVOIR) WAS 6 PERCENT ABOVE LAST YEAR'S LEVEL FOR JANUARY 1, AND 61 PERCENT OF TOTAL USABLE CAPACITY.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Aldridge Ditch (Tony Creek) Badger Creek Dee Irrigation Dist. East Fork Irrig. Dist. Farmers Irrigation Dist. Hood River Irrig. Dist. Juniper Flat Middle Fork Irrig. Dist. Mile Creeks Mill Creek Mount Hood Irrig. Dist. Rock-Gate-Threemile Crs. Tygh Creek White River	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average +
Hood River near Tucker Bridge	c				
Hood, West Fork near Dee	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
White below Tygh Valley	c				

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	Forecasts begin in the February 1 report which will be issued about February 9, 1973.		

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Clear Lake (Wasco)	11.9	7.2	6.8*	- -
*Reading 12/21/71.				

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
Hood River	4	20	40
Mile Creeks	-	-	-
White River	3	20	50

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	THIS YEAR'S MOISTURE as PERCENT OF: Average i
Hood River, Mile Creeks	-	-	-

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water co tent estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- Soil Moisture Station
- Precipitation Gage
- Temperature Gage
- Radio Telemetry

WATER SUPPLY OUTLOOK
LOWER COLUMBIA WATERSHEDS
OREGON

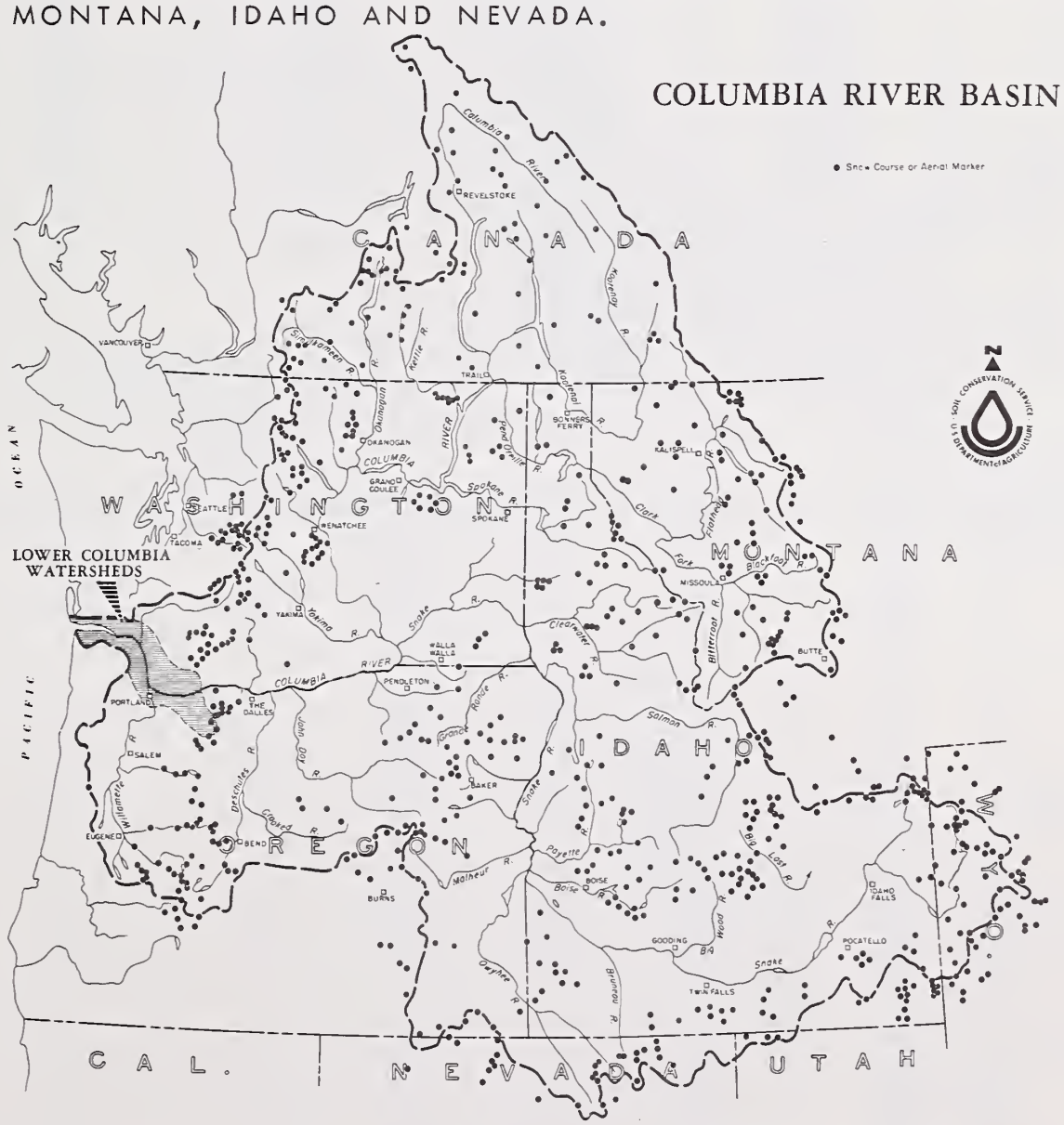
as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

GENERAL OUTLOOK

EARLY SNOW SURVEYS INDICATE THAT THIS YEAR'S FLOW OF THE COLUMBIA RIVER WILL BE NEAR BUT A LITTLE BELOW AVERAGE. WHILE SNOW ON MOST WATERSHEDS OF OREGON AND WASHINGTON IS ABOUT 35 TO 60 PERCENT OF AVERAGE, ON THE MAIN TRIBUTARIES OF BRITISH COLUMBIA, WESTERN MONTANA, AND IDAHO IT RANGES FROM NEAR 80 PERCENT TO AN AVERAGE AMOUNT. SOIL MOISTURE IS ABOUT AVERAGE OR BETTER ON MOST WATERSHEDS OF OREGON, WASHINGTON AND WYOMING BUT NEAR OR BELOW AVERAGE IN MONTANA, IDAHO AND NEVADA.



Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average [i]
Sandy River	2	20	50

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST [c]		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average [+]
Columbia at The Dalles	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
Sandy River near Marmot	c				

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW [d] (1,000 A.F.)			PEAK [e] (1,000 c.f.s)	DATE
	APR. — SEPT.	APR. — JUNE	MAY — JUNE		
1953	100,600	64,900	55,800	609	June 17
1954	119,500	70,500	59,300	561	May 23
1955	99,500	58,300	50,300	545	June 26
1956	131,400	96,900	75,800	815	June 3
1957	105,700	80,500	67,200	700	May 22
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1953-67 Avg.	105,181	72,408	59,689	574	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu.)	FLOW AT THE DALLES (1,000 c.f.s)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records.

LOWER COLUMBIA WATERSHEDS

10 0 10 20 30
SCALE 1: 600,000

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- (50) River Miles
- Snow Course
- Temperature
- Radio Telemetry
- Forecast Point

OR-7c

Area 8

WATER SUPPLY OUTLOOK
WILLAMETTE WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

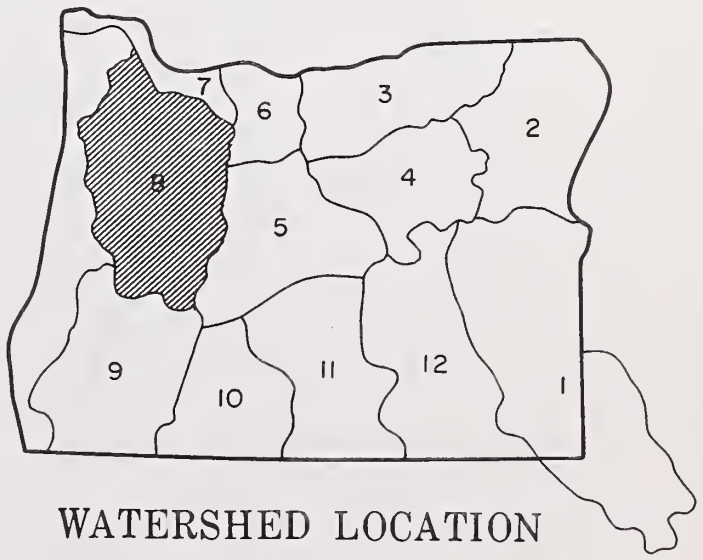
GENERAL OUTLOOK

WILLAMETTE BASIN WATER USERS WILL HAVE BELOW AVERAGE WATER SUPPLIES IN 1973 IF PRESENT CONDITIONS CONTINUE. THE MOUNTAIN SNOWPACK VARIES FROM 15 PERCENT OF NORMAL ON THE CLACKAMAS DRAINAGE TO 45% ON THE McKENZIE WATERSHED. THIS IS ONLY 5 TO 20 PERCENT OF LAST YEAR'S NEAR RECORD AMOUNTS. PRECIPITATION WAS 116 PERCENT OF AVERAGE DURING DECEMBER, BUT MUCH OF THE RAIN WAS WARM AND MELTED THE EARLY ACCUMULATION OF SNOW. THE WILLAMETTE RESERVOIRS ARE BEING HELD AT THEIR USUAL LOW LEVELS DURING THIS TIME OF YEAR FOR FLOOD CONTROL PURPOSES. THE MIDDLE FORK OF THE WILLAMETTE BELOW THE NORTH FORK FLOWED 74 PERCENT OF AVERAGE DURING DECEMBER.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Calapooya Clackamas McKenzie Molalla Santiam, North Santiam, South Willamette, Coast Fork Willamette, Middle Fork	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average †
Clackamas at Estacada	c				
Clackamas above Three Lynx	c				
McKenzie at McKenzie Bridge	c				
McKenzie near Vida	c				
McKenzie, South Fork near Rainbow	c				
Oak Grove Fork above Power Intake	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
Row near Dorena	c				
Santiam, North at Mehama	c				
Santiam, South at Waterloo	c				
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	c				
Willamette, No. Fk. of Mid. Fk. near Oakridge	c				
Willamette at Salem					

SUMMARY of SNOW MEASUREMENTS
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
Clackamas River	2	5	15
McKenzie River	3	20	45
Row River	2	10	35
Santiam River	4	15	25
Willamette, Mid. Fk.	3	20	50

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Blue River	85.6*	0.0	0.0	- -
Cottage Grove	30.0*	0.0	0.0	2.2
Cougar	155.2*	4.2	5.0	- -
Detroit	299.9*	46.2	0.0	40.2
Dorena	70.5*	0.0	0.0	9.1
Fall Creek	115.0*	0.0	0.0	- -
Fern Ridge	94.2*	0.0	0.0	14.5
Foster	30.0*	0.0	0.2	- -
Green Peter	270.0*	54.9	0.0	- -
Hills Creek	200.0*	2.6	8.7	183.2
Lookout Point	337.2*	2.2	0.0	75.2
Timothy Lake	61.7	53.7	51.4	46.4

*Multiple purpose reservoir--space reserved primarily for flood runoff.

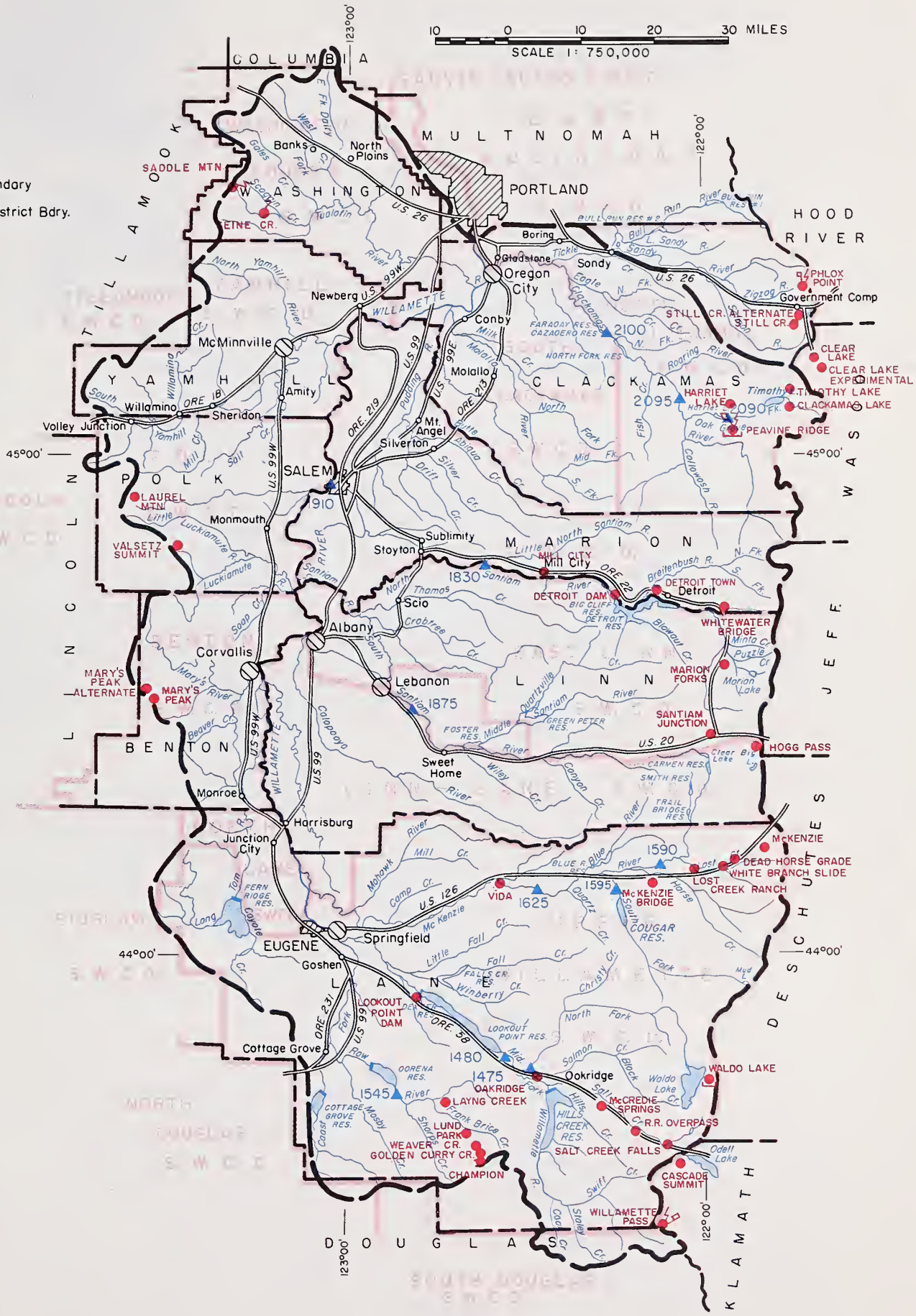
(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

WILLAMETTE WATERSHEDS

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Radio Telemetry
- Precipitation Gage
- Temperature Gage

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT of AGRICULTURE



WATER SUPPLY OUTLOOK
ROGUE, UMPQUA, WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

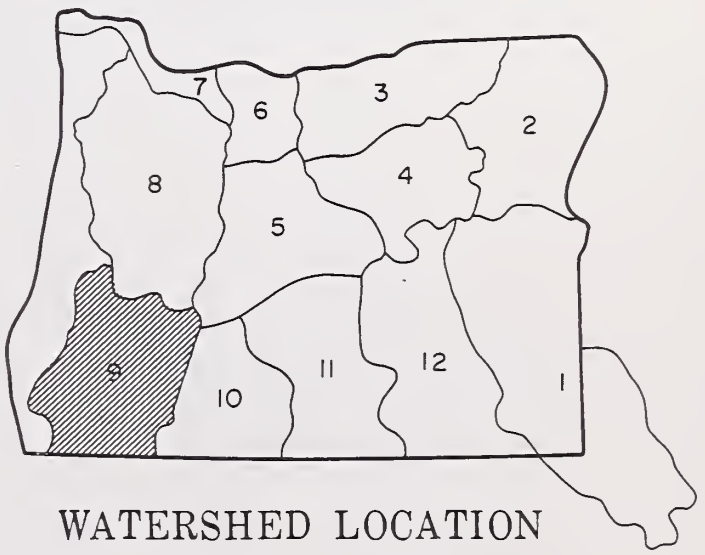
GENERAL OUTLOOK

WATER SUPPLIES WILL BE AVERAGE TO BELOW AVERAGE IF PRESENT CONDITIONS CONTINUE ON THE ROGUE AND UMPQUA DRAINAGES DURING 1973. THE MOUNTAIN SNOWPACK VARIES FROM 90 PERCENT OF AVERAGE ON THE BUTTE CREEK DRAINAGE TO 40 PERCENT ON THE NORTH UMPQUA DRAINAGE. PRECIPITATION DURING DECEMBER WAS 83 PERCENT OF AVERAGE AND 78 PERCENT OF AVERAGE DURING THE NOVEMBER-DECEMBER PERIOD. THE ROGUE RIVER AT RAYGOLD FLOWED 61 PERCENT OF AVERAGE DURING DECEMBER. THE UMPQUA RIVER NEAR ELKTON FLOWED 55 PERCENT OF AVERAGE DURING DECEMBER. RESERVOIR STORAGE WAS AVERAGE FOR DECEMBER 31.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Althouse Creek Applegate River, Big Applegate River, Little Ashland Creek Butte Creek, Big Butte Creek, Little Cow Creek Deer Creek Elk Creek Emigrant Creek (abv. Res.) Evans Creek Gold Hill Irrig. Dist. Grants Pass Irrig. Dist. Grave Creek Illinois River, East Fork Illinois River, West Fork Jump-off-Joe Creek Neil Creek Red Blanket Creek Rogue River Sucker Creek Table Rock Irrig. Dist. Thompson Creek Wagner Creek Williams Creek	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average †
Applegate near Copper	c				
Clearwater above Trap Creek	c				
Fourmile Lake net Inflow	c				
Hyatt Reservoir net Inflow	c				
Illinois River near Kerby	c				
Little Butte, N. Fk. at Fish Lk. nr. Lake Cr.	c				
Little Butte, So. Fk. nr. Lake Creek	c	NOTE: FORECASTS BEGIN ON FEB. 1, 1973.			
Rogue above Prospect	c				
Rogue, South Fork near Prospect	c				
Rogue at Raygold near Central Point	c				
Rogue at Grants Pass	c				
Umpqua, No. blw. Lemolo Lake nr. Toketee Falls	c				

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	Forecasts begin in the February 1 report which will be issued about February 9, 1973.		
Rogue at Raygold			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Emigrant Lake	39.0	16.6	21.3	19.7*
Fish Lake	8.0	8.1	7.9	5.2
Fourmile Lake	16.1	- -	- -	8.8
Howard Prairie	60.0	44.3	49.0	32.8
Hyatt Prairie	16.1	8.6	13.9	9.2

*Average for years of record after reconstruction.

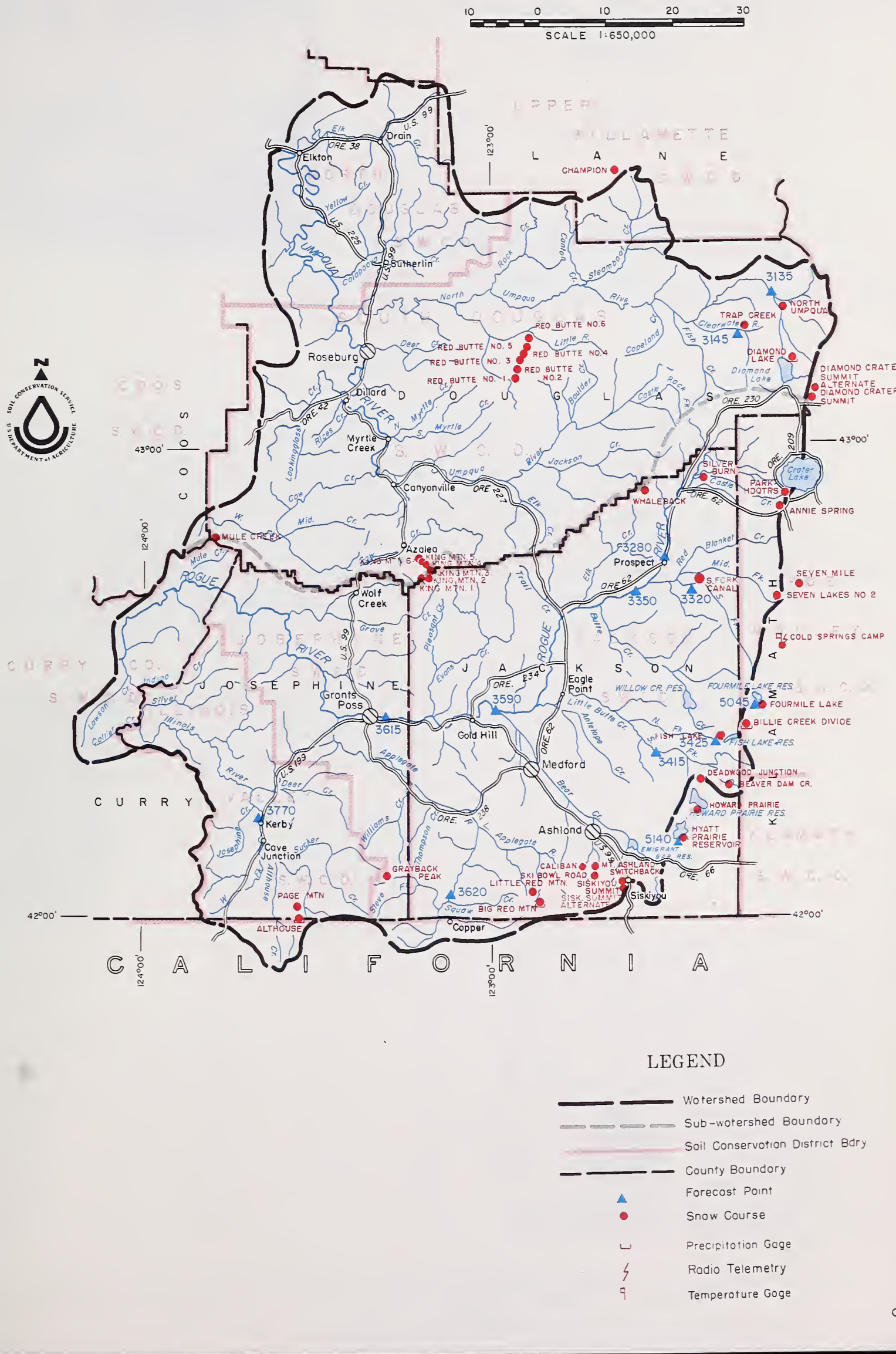
SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	THIS YEAR'S SNOW WATER AS PERCENT OF Average i
Applegate	-	-	-
Bear Creek	1	0	0
Butte Creek	4	33	90
Illinois River	-	-	-
North Umpqua	3	25	40
Rogue River	3	30	75

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

ROGUE, UMPQUA WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry
- County Boundary
- Forecast Point
- Snow Course
- Precipitation Gage
- Radio Telemetry
- Temperature Gage

OR-9c

Area 10

WATER SUPPLY OUTLOOK
KLAMATH WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

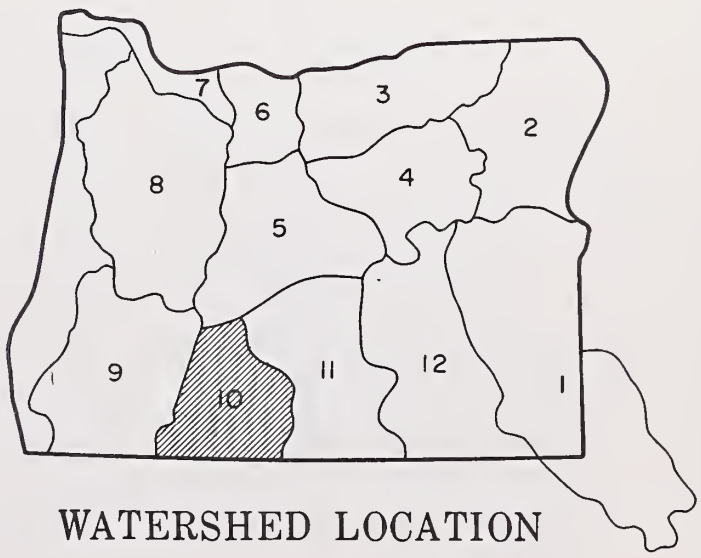
GENERAL OUTLOOK

PRESENT CONDITIONS INDICATE THAT KLAMATH BASIN WATER USERS WITH DIRECT DIVERSIONS WILL HAVE BELOW AVERAGE WATER SUPPLIES DURING THE 1973 SEASON. THE MOUNTAIN SNOWPACK RANGES FROM 30 PERCENT OF NORMAL ON THE SPRAGUE RIVER TO 60 PERCENT ON THE UPPER KLAMATH RIVER. RAINFALL DURING DECEMBER WAS 97 PERCENT OF AVERAGE AND 78 PERCENT OF AVERAGE FOR THE NOVEMBER-DECEMBER PERIOD. THE AVAILABLE MOISTURE IN MOUNTAIN SOIL IS 83 PERCENT OF NORMAL. THE UPPER KLAMATH NET INFLOW WAS 97 PERCENT OF AVERAGE DURING DECEMBER. STORED WATER IN THREE RESERVOIRS IS 27 PERCENT ABOVE AVERAGE AND USERS WITH SUPPLIES AVAILABLE FROM THE RESERVOIRS WILL EXPERIENCE AVERAGE CONDITIONS THIS SUMMER.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Ft. Klamath Valley Lost River (Clear Lake) Lost River (Gerber) Lost River (Willow Res. Sprague River Upper Klamath Lake Williamson River	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average +
Clear Lake Reservoir Inflow	c				
Gerber Reservoir Inflow	c				
Sprague near Chiloquin	c		NOTE: FORECASTS BEGIN ON FEB. 1, 1973.		
Upper Klamath Lake net Inflow	c				
Williamson below Sprague River	c				

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	Average i
Upper Klamath	1	109	83

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Clear Lake	440.2	289.5	278.2	191.7
Gerber	94.0	51.3	56.7	36.4
Upper Klamath Lake	584.0	395.2	369.4	351.3

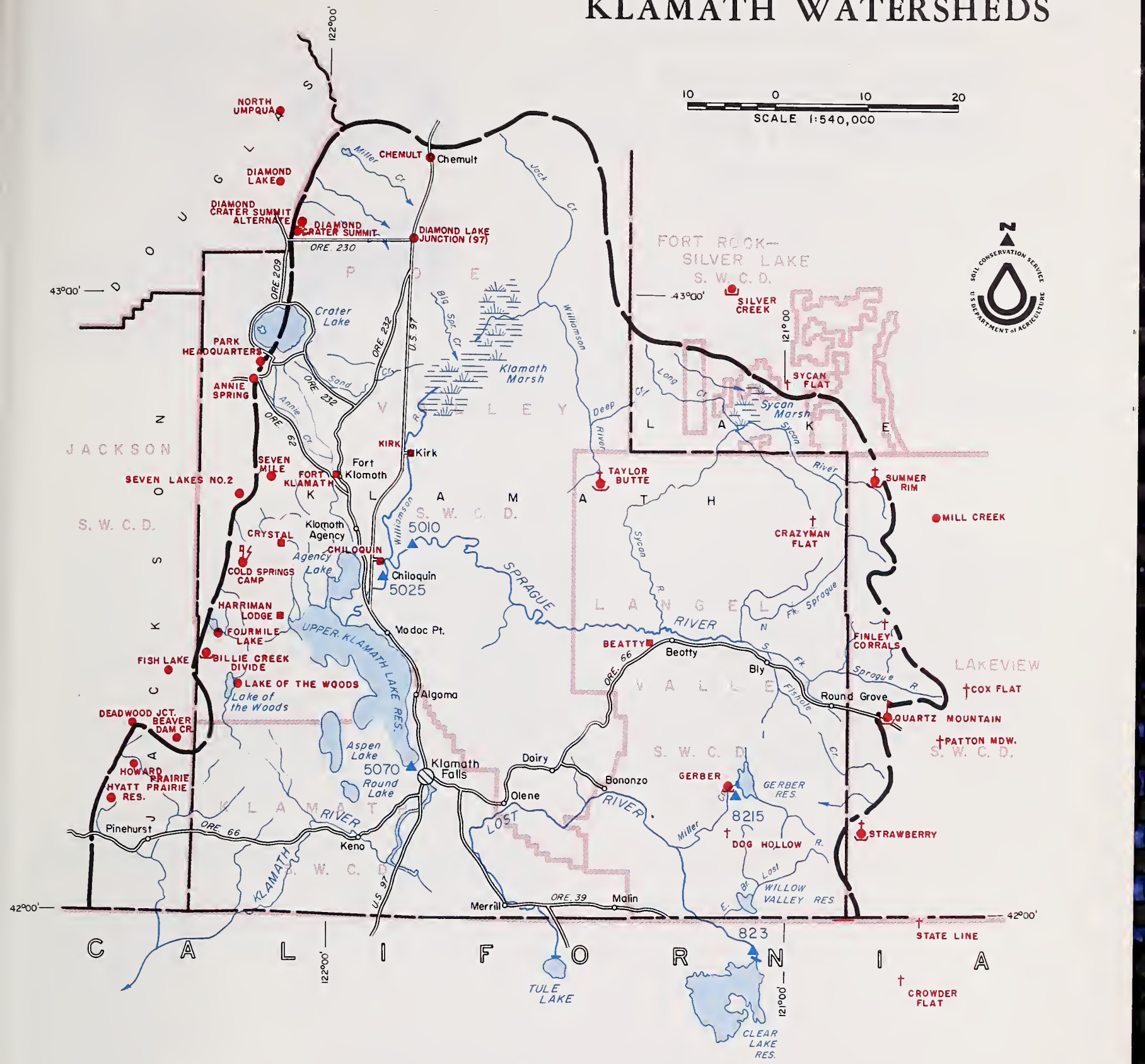
SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	Average i
Lost River	1	0	0
Sprague River	2	15	30
Upper Klamath	2	30	60
Williamson River	3	25	50

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

KLAMATH WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage
- PP&L Snow Station
- Soil Moisture Station
- Precipitation Gage
- Radio Telemetry
- Temperature Gage

WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

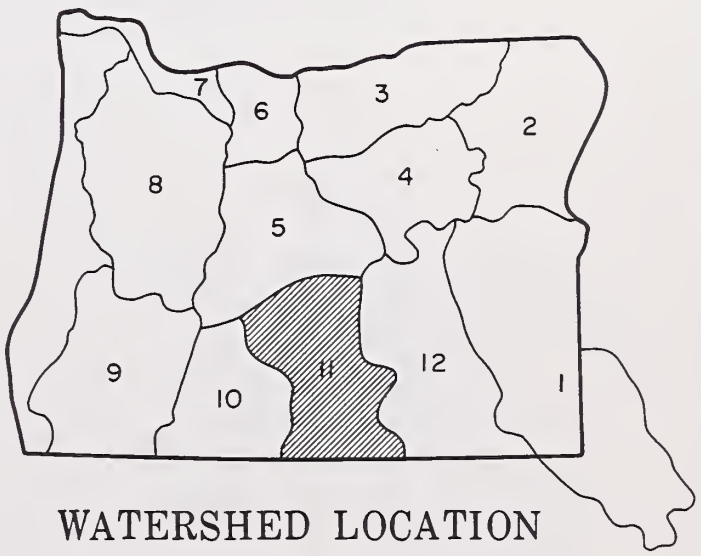
GENERAL OUTLOOK

IF PRESENT CONDITIONS PERSIST LAKE COUNTY WATER USERS, DEPENDENT UPON DIRECT DIVERSION, WILL HAVE BELOW AVERAGE WATER SUPPLIES DURING THE 1973 SEASON. THE MOUNTAIN SNOWPACK VARIES FROM 25 PERCENT OF AVERAGE ON THE SILVER AND DREW CREEK DRAINAGES TO 50 PERCENT ON THE DEEP AND HONEY CREEK DRAINAGES. PRECIPITATION FOR DECEMBER WAS 82 PERCENT OF NORMAL AND 83 PERCENT OF AVERAGE FOR THE NOVEMBER-DECEMBER PERIOD. HOWEVER THE RAINS WERE WARM AND MELTED MUCH OF THE EARLY ACCUMULATION OF SNOW. MOUNTAIN WATERSHED SOILS CONTAIN NEAR AVERAGE AMOUNTS OF SOIL MOISTURE. RESERVOIR STORAGE FIGURES WERE NOT AVAILABLE AT THE TIME OF THIS REPORT. THE DECEMBER FLOW OF THE CHEWAUCAN RIVER AT PAISLEY WAS 34 PERCENT OF NARMAL.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Chewaucan River Crooked Creek Deep Creek Dry Creek East Side Goose Lake Guano Lake Honey Creek Lakeview Water Users Assn. Rock Creek (Hart Mountain) Silver-Buck Creeks Summer Lake Thomas Creek Twentymile Creek Warner Lakes	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average †
Chewaucan near Paisley	c				
Deep above Adel	c				
Drews Reservoir net Inflow	c		NOTE: FORECASTS BEGIN ON FEB. 1, 1973.		
Honey near Plush	c				
Silver Creek near Silver Lake	c				
Twentymile near Adel	c				

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	Average i
Chewaucan, Silver Creek, Drew Creek	1	109	83
Honey, Deep, 20-Mi. Cr.	1	108	108

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage This Year	Usable Storage Last Year	Usable Storage Average i
Cottonwood	8.7	b	- -	2.1*
Drews	63.0	b	39.0	31.0
Thompson Valley	19.5	b	- -	11.1

*Average for years of record after reconstruction.

SUMMARY of SNOW MEASUREMENTS

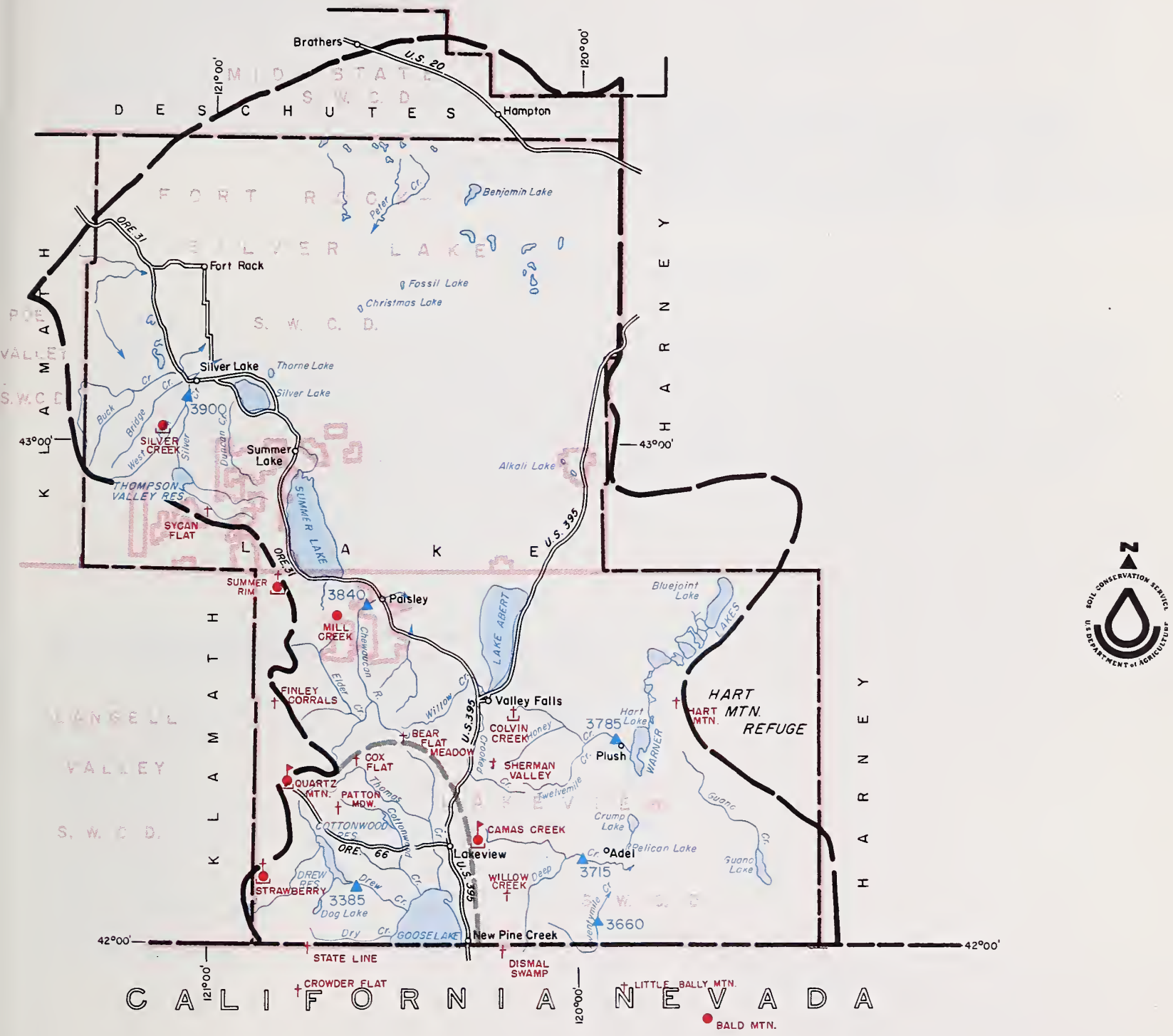
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	Average i
Chewaucan River	2	15	30
Deep Creek	1	25	50
Drew Creek	1	15	25
Honey Creek	1	25	50
Silver Creek	2	10	25
Twentymile Creek	-	-	-

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

LAKE COUNTY, GOOSE LAKE WATERSHEDS

10 0 10 20 30
SCALE 1:750,000



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT of AGRICULTURE

LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- Forecost Point
- Snow Course
- Aerial Snow Depth Gage
- P P & L Snow Station
- Soil Moisture Station
- Precipitation Gage

OR-11c

Area 12

WATER SUPPLY OUTLOOK
HARNEY BASIN WATERSHEDS
OREGON

as of

JANUARY 1, 1973

U. S. D. A. SOIL CONSERVATION SERVICE
OREGON STATE UNIVERSITY ··· OREGON STATE ENGINEER

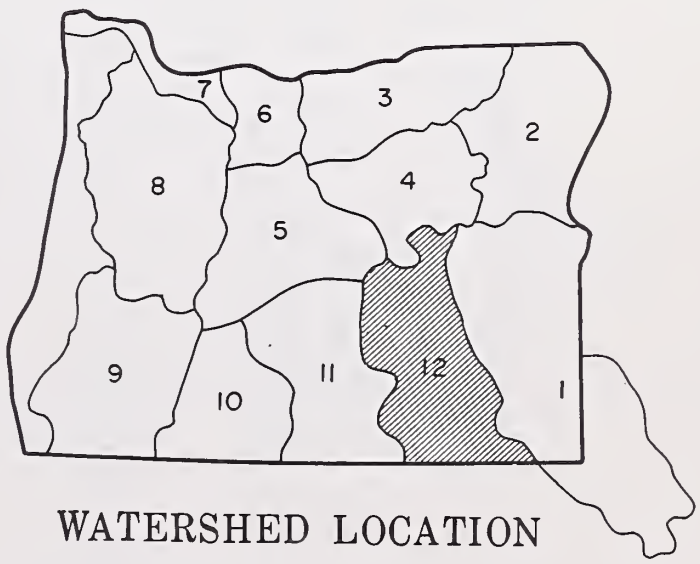
GENERAL OUTLOOK

HARNEY BASIN WATER USERS WILL HAVE AVERAGE TO BELOW AVERAGE WATER SUPPLIES DURING THE SPRING AND SUMMER OF 1973 IF PRESENT CONDITIONS CONTINUE. THE EARLY SEASON SNOWPACK IS AVERAGE TO MUCH BELOW AVERAGE, RANGING FROM 30 PERCENT ON THE DANNER UND BLITZEN RIVER DRAINAGE TO 95 PERCENT ON THE SILVIES RIVER. RAINFALL WAS 131 PERCENT DURING DECEMBER AND 110 PERCENT FOR THE NOVEMBER-DECEMBER PERIOD. SOIL MOISTURE IS AVERAGE FOR THIS TIME OF YEAR.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Catlow Valley Cow Creek Donner und Blitzen River Mill-Coffeepot Creeks Rattlesnake Creek Silver Creek Silvies River Soldier-Prather Creek Trout Creek Whitehorse Creek	Forecasts begin in the February 1 report which will be issued about February 9, 1973.	



WATERSHED LOCATION

Report prepared by
T.A. GEORGE AND H.M. VANCE
U.S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average +
Donner und Blitzen near Frenchglen	c				
Silver near Riley	c				
Silvies near Burns	c		NOTE: FORECASTS BEGIN ON FEB. 1, 1973.		
Trout near Denio	c				

SOIL MOISTURE

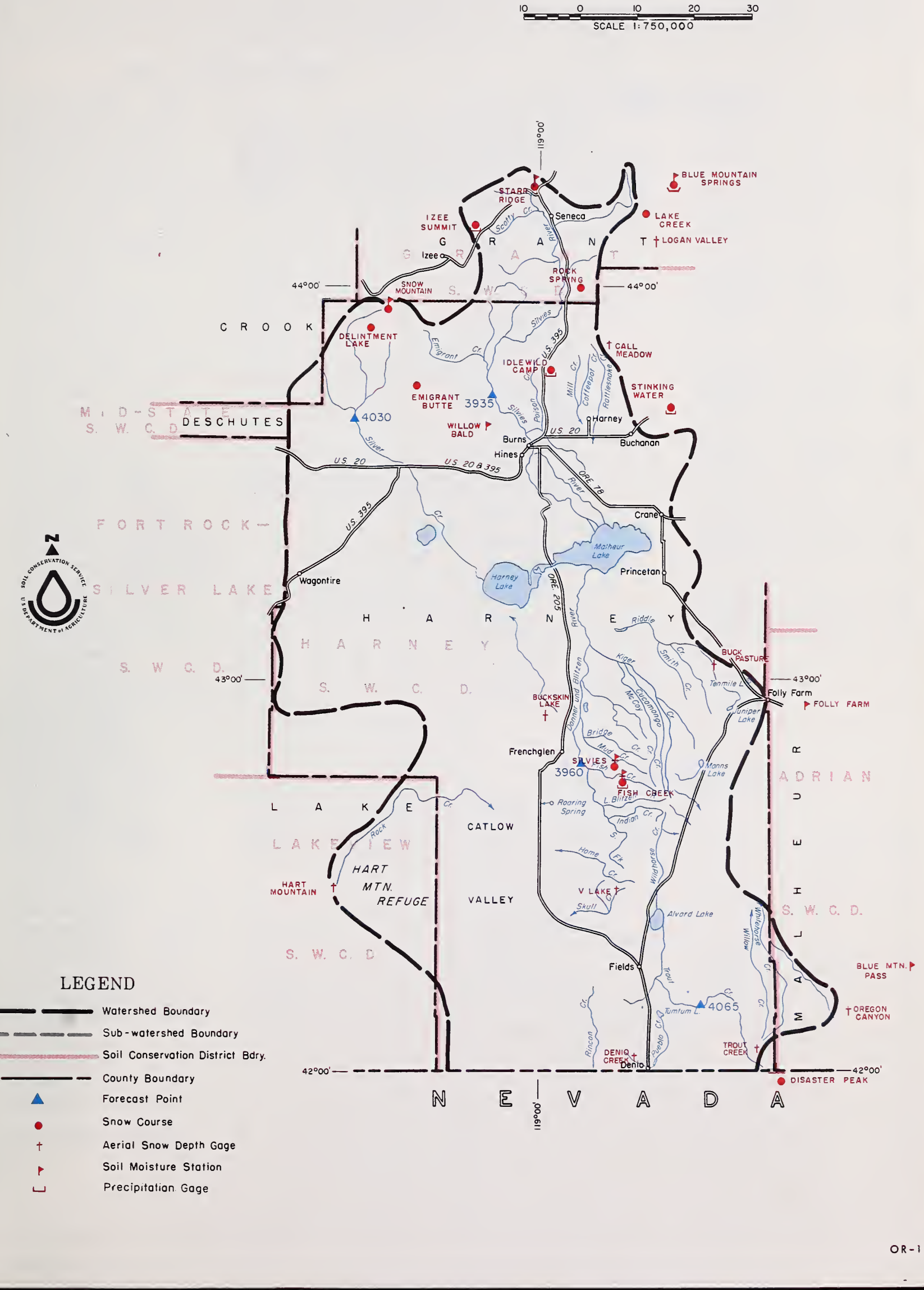
RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF: Last Year	Average i
Silvies River, Silver Cr.	2	100	100
Trout Cr., Donner und Blitzen River	-	-	-

SUMMARY of SNOW MEASUREMENTS
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year	Average i
Donner und Blitzen R.	1	15	30
Silver Creek	-	-	-
Silvies River	4	35	95
Trout Creek	-	-	-

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953-67 adjusted average. (i) 1953-67, 15 year average. (j) Telephonic report - data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

HARNEY BASIN WATERSHEDS



LEGEND

- Watershed Boundary
- Sub-watershed Boundary
- Soil Conservation District Bdry.
- County Boundary
- ▲ Forecast Point
- ● Snow Course
- † Aerial Snow Depth Gage
- ⚑ Soil Moisture Station
- ⌴ Precipitation Gage

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1973

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR: Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC.: Water Content (inches) Last Yr.	Ave.+	
OWYHEE, MALHEUR WATERSHEDS						
Antelope Ridge (Ida.)	c					
Battle Creek[e] (Ida.)	c					
Bear Creek[e] (Nev.)	12/26	35	9.8	12.8	6.6	h
Big Bend (Nev.)	12/28	18	3.9	7.4	2.6	
Blue Mountain Springs	12/29	23	5.6	12.1	5.6	h
Blue Mtn. Springs Pillow*	12/29		5.4	7.9	- -	
Buck Pasture[e]	c					
Buckskin, Lower (Nev.)	c					
Buckskin, Upper (Nev.)	c					
Bull Basin[e] (Ida.)	c					
Bully Creek[e]	c					
Call Meadow[e]	c					
Columbia Basin[e]	c					
Cottonwood-Indian[e]	c					
Crane Prairie	c					
Disaster Peak (Nev.)	c					
Eldorado Pass	12/29	5	1.3	3.7	1.2	h
Fawn Creek[e] (Nev.)	c					
Fish Creek	c					
Fish Creek Pillow*	c					
Flag Prairie[e]	c					
Fox Creek (Nev.)	c					
Fry Canyon (Nev.)	12/29	19	4.8	6.3	2.3	h
Gold Creek (Nev.)	12/28	10	1.7	4.8	1.6	h
Granite Peak (Nev.)	c					
Hyde Pasture[e] (Ida.)	c					
Jack Creek, Lower (Nev.)	c					
Jack Creek, Upper (Nev.)	c					
Jack Peak (Nev.)	c					
Lake Creek R. S.	12/29	14	3.5	8.6	3.6	h
Laurel Draw (Nev.)	c					
Logan Valley[e]	c					
Lookout Butte[e]	c					
Louse Canyon[e]	c					
Martin Creek (Nev.)	c					
Merritt Mountain[e] (Nev.)	c					
Midas[e] (Nev.)	c					
Mud Flat (Ida.)	c					
Oregon Canyon[e]	c					
Quinn Ridge[e] (Nev.)	c					
Red Canyon[e] (Ida.)	c					
Rock Spring	12/26	8	1.8	5.2	1.6	
Rodeo Flat (Nev.)	12/29	20	4.7	6.3	2.4	h
76 Creek (Nev.)	12/26	22	6.2	8.0	- -	
Silver City (Nev.)	12/27	15	3.4	14.2	4.9	
Silvies	c					
Silvies Pillow*	c					
South Mountain #2 (Ida.)	12/27	13	2.6	11.1	3.6	h
Stag Mountain[e] (Nev.)	c					
Stinking Water	12/28	1	0.4	3.0	1.3	h
Succor Creek[e] (Ida.)	c					
Taylor Canyon (Nev.)	12/29	12	3.2	4.2	1.6	h
Toe Jam[e] (Nev.)	c					
Tremewan Ranch (Nev.)	12/28	5	2.3	2.0	0.4	h
Triangle (Ida.)	c					
Trout Creek[e]	c					
"V" Lake[e]	c					
Vaught Ranch[e] (Ida.)	c					
War Eagle[e] (Ida.)	c					

*Manometer Reading.

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR: Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC.: Water Content (inches) Last Yr.	Ave.+	
BURNT, POWDER, PINE GRANDE RONDE, IMNAHA WATERSHEDS						
Aneroid Lake #1	c					
Aneroid Lake #2	c					
Anthony Lake	12/29	34	8.0	19.5	11.2	
Bald Mountain[e] (Ore.)	c					
Beaver Reservoir	12/27	10	2.3	10.8	3.7	h
Beaver Reservoir (Alt.)	12/27	11	2.5	13.2	- -	
Big Sheep[e]	c					
Blue Mtn. Summit	12/29	12	1.7	7.6	2.9	
Bourne	c					
County Line	12/29	4	0.6	7.1	2.2	
Dooley Mountain	12/26	11	2.5	8.4	3.0	
Eilertson Meadows	12/27	11	2.2	9.6	4.4	
Eldorado Pass	12/29	5	1.3	3.7	1.2	h
Gold Center	c					
Goodrich Lake	c			21.4	- -	
Intake House	12/27	14	4.4	8.4	- -	
Little Alps	12/29	17	3.4	11.3	4.8	h
Little Antone	12/29	9	1.8	8.1	- -	
Lucky Strike	c					
Lucky Strike Pillow*	c					
Meacham	12/26	2	0.6	12.8	2.6	h
Mirror Lake[e]	c					
Moss Spring	c					
Power Plant	12/27	4	1.8	5.8	- -	
Schneider Meadows	c					
Schoolmarm	12/29	3	0.5	7.0	1.8	
Standley[e]	c					
Taylor Green	c					
Tipton	12/29	17	3.1	9.6	3.8	
Tipton Snow Pillow	12/29		4.5	- -	- -	
Tollgate	1/3	30	6.6	23.3	8.1	h
TV Ridge[e]	c					

*Manometer reading.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

Arbuckle Mountain	c					
Arbuckle Mtn. Pillow*	c					
Battle Mountain Summit	12/26	T	T	6.2	0.9	m
Blue Mountain Camp	1/3	14	2.8	20.2	3.5	m
Butte Creek Summit	c					
Emigrant Springs	12/26	T	T	10.4	1.7	h
High Ridge Pillow*	1/2	41	9.4	- -	- -	
Lucky Strike	c					
Lucky Strike Pillow*	c					
Meacham	12/26	2	0.6	12.8	2.6	h
Tollgate	1/3	30	6.6	23.3	8.1	h
Weston Mountain	1/3	T	T	0.6	- -	

*Manometer Reading.

WSFB-X4A-N

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1973

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC. Water Content (inches) Last Yr.	Ave.i	
UPPER JOHN DAY WATERSHEDS						
Anthony Lake	12/29	34	8.0	19.5	11.2	
Arbuckle Mountain	c					
Arbuckle Mtn. Pillow*	c					
Battle Mountain Summit	12/26	T	T	6.2	0.9	m
Beech Creek Summit	12/27	2	0.3	7.2	1.5	h
Blue Mountain Springs	12/29	23	5.6	12.1	5.6	h
Blue Mtn. Springs Pillow*	12/29		5.4	7.9	- -	
Blue Mountain Summit	12/29	12	1.7	7.6	2.9	
Butte Creek Summit	c					
Derr	c					
Gold Center	c					
Indian Creek Butte[e]	c					
Izee Summit	12/26	10	2.3	6.6	2.7	h
Lucky Strike	c					
Lucky Strike Pillow*	c					
Marks Creek	12/27	T	T	6.1	1.3	m
Ochoco Meadows	c					
Olive Lake[e]	c					
Schoolmarm	12/29	3	0.5	7.0	1.8	
Snow Mountain	c					
Snow Mtn. Pillow**	1/2		5.2	- -	- -	
Starr Ridge	12/26	8	1.4	6.4	2.0	h
Tipton	12/29	17	3.1	9.6	3.8	
Tipton Snow Pillow*	12/29		4.5	- -	- -	
Williams Ranch	c			3.3	- -	
*Manometer reading.						
**Telemetry reading.						
UPPER DESCHUTES, CROOKED WATERSHEDS						
Bald Peter	12/29	28	7.0	- -	- -	
Caldwell Ranch	c					
Cascade Summit	12/29	25	5.8	22.0	10.3	
Chemult	1/4	9	2.2	6.9	4.1	
Chemult Alternate	b					
Derr	c					
Hogg Pass	1/2	27	5.5	28.0	13.9	
Hungry Flat	1/1	0	0.0	5.1	- -	
Irish-Taylor Pillow**	1/1		10.0	26.3	- -	
Marks Creek	12/27	T	T	6.1	1.3	m
New Crescent Lake	c					
New Dutchman Flat #2	1/1	45	15.1	37.4	- -	
Ochoco Meadows	c					
Racing Creek	12/29	9	1.6	- -	- -	
Snow Mountain	c					
Snow Mtn. Pillow**	1/2		5.2	- -	- -	
Tamarack						
Tangent	1/1	23	5.6	15.0	- -	
Three Creek Butte	c					
Three Creek Meadow	c					
Three Creek Mdw. Pillow**	b					
Waldo Lake	c					
Willamette Pass	c					
Willamette Pass Pillow**	b					
**Telemetry reading.						

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC. Water Content (inches) Last Yr.	Ave.i	
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS						
Brooks Meadow						
Clear Lake	12/29	2	0.5	8.8	2.6	h
Clear Lake (Experimental)	12/29	5	1.3	12.9	4.9	h
Cooper Spur	12/29	2	0.2	9.9	6.0	m
Greenpoint	c					
Knebal Springs	c					
Parkdale	12/29	0	0.0	0.0	1.0	m
Phlox Point	12/29	42	12.0	45.1	20.8	
Red Hill	c					
Still Creek	12/29	9	2.2	19.0	7.1	
Still Cr. Alt. #2	12/29	9	2.3	18.9	- -	
Switchback	c					
Tilly Jane	c					
Ulrich Ranch Junction	c					
Umbrella Falls	c			51.6	- -	
Upper Valley	12/29	T	T	4.0	2.7	h
WILLAMETTE WATERSHEDS						
Cascade Summit	12/29	25	5.8	22.0	10.3	
Champion	12/29	16	3.2	27.1	7.7	h
Clackamas Lake	c					
Clear Lake	12/29	2	0.5	8.8	2.6	h
Clear Lake (Expt.)	12/29	5	1.3	12.9	4.9	h
Dead Horse Grade	1/2	14	2.3	15.8	6.5	h
Detroit (Town)	1/2	0	0.0	2.5	0.6	
Detroit Dam	1/2	0	0.0	1.0	0.3	
Golden Curry Creek	12/29	1	0.1	9.2	1.4	h
Hogg Pass	1/2	27	5.5	28.0	13.9	
Lake Harriet	c					
Laurel Mountain	12/29	2	0.6	22.6	- -	
Layng Creek	12/29	0	0.0	T	0.1	h
Lookout Point Dam	12/29	0	0.0	0.0	0.0	h
Lost Creek Ranch	1/2	0	0.0	5.6	1.3	h
Lund Park	12/29	0	0.0	0.1	0.0	m
Marion Forks	1/2	6	1.0	9.1	4.0	h
Marys Peak	c					
Marys Peak (Alt.)	c					
McCredie Springs	12/29	0	0.0	3.0	0.1	
McKenzie	1/2	34	9.2	34.2	17.9	h
McKenzie Bridge	1/2	0	0.0	0.0	0.5	h
Mill City	1/2	0	0.0	0.5	0.2	
Oakridge	12/29	0	0.0	0.0	T	
Peavine Ridge Pillow**	1/1		1.4	16.5	- -	
Phlox Point	12/29	42	12.0	45.1	20.8	
Railroad Overpass	12/29	1	0.1	5.0	0.5	m
Saddle Mountain Pillow**	b			19.9	- -	
Salt Creek Falls	12/29	8	1.8	12.7	4.6	
Santiam Junction	1/2	19	3.1	17.8	7.7	h
Seine Creek Pillow**	b			10.5	- -	
Still Creek	12/29	9	2.2	19.0	7.1	
Still Creek Alt. #2	12/29	9	2.3	18.9	- -	
Timothy Lake	b			12.9	4.0	m
Valsetz Summit	12/29	T	T	13.4	- -	
Vida	1/2	0	0.0	0.0	0.2	h
Waldo Lake	c					
Weaver Creek	12/27	T	T	2.2	0.2	m
White Branch Slide	1/2	6	1.0	6.8	2.2	h
Whitewater Bridge	1/2	T	T	6.4	1.5	h
Willamette Pass	c					
Willamette Pass Pillow**	b					
**Telemetry reading.						

USDA-SCS-PORTLAND, OREG. 1969

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1973

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC. Water Content (inches) Last Yr.	Ave.[i]	
ROGUE, UMPQUA WATERSHEDS						
Althouse	c					
Althouse #2	c					
Annie Spring	12/29	51	15.7	24.4	14.9	
Beaver Dam Creek	12/28	13	3.9	13.5	4.6	m
Big Red Mountain	c					
Billie Creek Divide	12/29	28	7.7	20.8	7.3	h
Caliban	c					
Champion	12/29	16	3.2	27.1	7.7	h
Cold Springs Camp	c					
Cold Springs Camp Pillow**	1/1		10.0	20.9	- -	
Deadwood Junction	12/29	10	2.9	9.6	3.3	h
Diamond-Crater Summit	12/29	36	8.5	21.5	14.0	h
Diamond-Crater Sum. Alt.	12/29	33	7.6	- -	- -	
Diamond Lake	12/29	19	3.8	14.4	8.2	
Fish Lake	12/29	15	4.2	12.4	5.3	m
Fourmile Lake	c					
Grayback Peak	c					
Howard Prairie	12/28	8	2.1	6.9	3.2	h
Hyatt Prairie	12/28	10	2.5	8.9	3.1	h
King Mountain #1	12/24	T	T	11.8	- -	
King Mountain #2	12/24	0	0.0	7.5	- -	
King Mountain #3	12/24	0	0.0	3.0	- -	
King Mountain #4	12/24	0	0.0	0.9	- -	
King Mountain #5	12/24	0	0.0	0.0	- -	
King Mountain #6	12/24	0	0.0	T	- -	
Little Red Mountain	c					
Mt. Ashland Switchback	c					
Mule Creek	12/25	0	0.0	17.9	- -	
North Umpqua	1/2	12	2.8	11.5	6.1	h
Page Mountain	c					
Park Headquarters	12/29	65	19.8	36.2	21.6	
Red Butte #1	12/23	0	0.0	15.5	4.3	h
Red Butte #2	12/23	0	0.0	9.0	0.6	h
Red Butte #3	12/23	0	0.0	7.2	- -	
Red Butte #4	12/23	0	0.0	4.2	- -	
Red Butte #5	12/23	0	0.0	3.6	2.2	m
Red Butte #6	12/23	0	0.0	1.8	- -	
Seven Lakes #2	c					
Seven Mile	c					
Silver Burn	12/28	11	3.3	11.7	4.4	
Siskiyou Summit	12/29	T	T	6.4	2.4	h
Siskiyou Summit Alt. #2	12/29	T	T	6.9	- -	
Ski Bowl Road	c					
South Fork Canal	12/28	2	0.5	4.1	1.3	
Trap Creek	1/2	12	3.7	12.0	4.1	h
Whaleback	c					

*Telemetry reading.

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC. Water Content (inches) Last Yr.	Ave.[i]	
KLAMATH WATERSHEDS						
Annie Spring	12/29	51	15.7	24.4	14.9	
Billie Creek Divide	12/29	28	7.7	20.8	7.3	h
Chemult	1/4	9	2.2	6.9	4.1	
Chemult (Alternate)	b			- -	- -	
Chiloquin (PP&L)	b			- -	0.7	
Cold Springs Camp	c					
Cold Springs Camp Pillow**	1/1		10.0	20.9	- -	
Crazyman Flat[e]	c					
Crowder Flat[e] (Calif.)	c					
Crystal (PP&L)	12/29	6	2.2	7.5	3.5	
Diamond-Crater Summit	12/29	36	8.5	21.5	14.0	h
Diamond-Crater Sum. Alt.	12/29	33	7.6	- -	- -	
Diamond Lake Jct. (97)	12/29	T	T	4.3	2.0	h
Dog Hollow[e]	c					
Finley Corrals[e]	c					
Fort Klamath (PP&L)	12/28	T	T	3.5	1.3	
Fourmile Lake	c					
Gerber	1/2	T	T	3.0	1.1	h
Harriman (PP&L)	12/30	4	1.7	7.5	1.3	
Hyatt Prairie Reservoir	12/28	10	2.5	8.9	3.1	h
Kirk (PP&L)	b			8.0	2.8	m
Lake of the Woods	12/29	9	2.7	10.1	5.1	h
Park Headquarters	12/29	65	19.8	36.2	21.6	
Quartz Mountain	12/29	4	0.6	4.1	2.4	
Quartz Mountain (Ext.)	12/29	4	1.0	4.5	- -	
Seven Lakes #2	c					
Seven Mile	c					
State Line[e] (Calif.)	c					
Strawberry	c					
Summer Rim	c					
Summer Rim Pillow*	c					
Sycan Flat[e]	c					
Taylor Butte	12/27	2	0.8	4.7	2.0	h

*Manometer reading.
**Telemetry reading.

LAKE COUNTY, GOOSE LAKE WATERSHEDS						
Adin Mountain (Calif.)	c					
Bald Mountain (Nev.)	c					
Bear Flat Meadow[e]	c					
Camas Creek	12/29	12	1.7	7.2	3.4	m
Cedar Pass (Calif.)	c					
Colvin Creek[e]	c					
Cox Flat[e]	c					
Crowder Flat[e] (Calif.)	c					
Dismal Swamp[e] (Calif.)	c					
Finley Corrals[e]	c					
Hart Mountain[e]	c					
Little Bally Mtn.[e] (Nev.)	c					
Mt. Bidwell (Calif.)	c					
North Star (Calif.)	c					
Patton Meadows[e]	c					
Quartz Mountain	12/29	4	0.6	4.1	2.4	
Quartz Mountain (Ext.)	12/29	4	1.0	4.5	- -	
Sherman Valley[e]	c					
Silver Creek	12/29	½	0.1	2.5	1.4	h
State Line[e] (Calif.)	c					
Strawberry	c					
Summer Rim	c					
Summer Rim Pillow*	c					
Sycan Flat[e]	c					
Willow Creek[e]	c					

*Manometer reading.

USDA-SCS-PORTLAND, OREG. 1969

WSFB-X4A-N

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1973

SNOW — DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR: Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC.: Water Content (inches) Last Yr.	Ave.[i]	
HARNEY BASIN WATERSHEDS						
Blue Mountain Springs	12/29	23	5.6	12.1	5.6	h
Blue Mtn. Springs Pillow*	12/29		5.4	8.5	- -	
Buck Pasture[e]	c					
Buckskin Lake[e]	c					
Call Mdadows[e]	c					
Delintment Lake	c					
Denio Creek[e]	c					
Disaster Peak (Nev.)	c					
Emigrant Butte	c					
Fish Creek	c					
Fish Creek Pillow*	c					
Hart Mountain[e]	c					
Idlewild Camp	12/29	2	0.2	5.7	1.4	
Idlewild Camp Alt.	12/29	2	0.2	6.6	- -	
Izee Summit	12/26	10	2.3	6.6	2.7	h
Lake Creek R. S.	12/29	0	0.0	8.6	3.6	h
Oregon Canyon[e]	c					
Rock Spring	12/26	8	1.8	5.2	1.6	
Silvies	c					
Silvies Pillow*	c					
Snow Mountain	c					
Snow Mountain Pillow**	1/2		5.2	- -	- -	h
Starr Ridge	12/26	8	1.4	6.4	2.0	h
Stinking Water	12/28	1	0.4	3.0	1.3	
Trout Creek[e]	c					
"V" Lake[e]	c					

*Manometer reading.
**Telemetry reading.

SNOW — DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR: Date of Survey	Snow Depth (In.)	Water Cont. (In.)	PAST REC.: Water Content (inches) Last Yr.	Ave.[i]

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953–67 adjusted average. (i) 1953–67, 15 year average. (j) Telephonic report – data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average or 5 or more years in base period.

USDA-SCS-PORTLAND, OREG. 1969

BASIC DATA SUPPLEMENT 2

JANUARY 1, 1973

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average [1]
OWYHEE, MALHEUR WATERSHEDS							
Bear Creek (Nev.)	7800	72	16.8	c			
Big Bend (Nev.)	6700	48	16.7	12/28	11.9	12.4	15.4
Blue Mountain Spring	5900	42	16.9	12/29	6.0	5.8	9.1
Crane Prairie	5375	48	18.2	c			
Folly Farm	4450	30	12.5	c			
Jack Creek, Lower (Nev.)	6800	48	8.6	c			
Jordan Valley	4390	48	19.3	12/27	16.7	- -	14.6
Mud Flat (Ida.)	5500	48	12.8	c			
Rodeo Flat (Nev.)	6800	42	11.0	12/29	5.5	6.2	10.3
Taylor Canyon (Nev.)	6200	48	15.1	12/29	10.9	9.4	13.2
Triangle (Ida.)	5150	48	16.6	c			
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	12/29	8.9	8.9	9.2
Dooley Mountain	5430	36	9.2	12/26	2.6	6.7	3.7
Emigrant Springs	3925	48	22.3	12/26	18.0	22.3	17.2
Ladd Summit	3730	48	18.9	12/29	9.9	10.0	9.8
Moss Springs	5850	36	25.8	c			
Tollgate	5070	48	23.6	1/3	14.0	15.0	19.7
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	12/26	12.0	12.2	11.5
Emigrant Springs	3925	48	22.3	12/26	18.0	22.3	17.2
Tollgate	5070	48	23.6	1/3	14.0	15.0	19.7
UPPER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	12/26	12.0	12.2	11.5
Beech Creek	4800	48	21.3	12/27	13.4	8.4	10.9
Blue Mountain Spring	5900	42	16.9	12/29	6.0	5.8	9.1
Blue Mountain Summit	5100	36	16.8	12/29	8.9	8.9	9.2
Derr	5670	24	9.0	c			
Marks Creek	4540	36	14.1	12/27	10.2	10.4	10.2
Snow Mountain	6300	48	16.7	c			
Starr Ridge	5150	36	10.6	12/26	9.0	9.0	8.8
Williams Ranch	4500	42	17.9	12/27	16.9	17.7	16.3
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0	c			
Marks Creek	4540	36	14.1	12/27	10.1	10.4	10.2
Snow Mountain	6300	48	16.7	c			
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS							
Cooper Spur	3490	72	26.4	b	- -	14.2	- -
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	12/29	7.4	6.8	8.9

USDA-SCS-PORTLAND, OREG. 1969

BASIC DATA SUPPLEMENT 2

JANUARY 1, 1973

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average *i*
LAKE COUNTY, GOOSE LAKE WATERSHEDS							
Camas Creek	5720	42	14.5	12/29	12.8	11.9	11.9
Quartz Mountain	5230	48	15.3	12/29	7.4	6.8	8.9
HARNEY BASIN WATERSHEDS							
Blue Mountain Spring	5900	42	16.9	12/27	10.1	5.8	9.1
Fish Creek	7900	48	15.0	*c*			
Folly Farm	4450	30	12.5	*c*			
Silvies	6900	48	16.4	*c*			
Snow Mountain	6300	48	16.7	*c*			
Starr Ridge	5150	36	10.6	12/26	9.0	9.0	8.8
Willow-Bald	5000	24	6.6	12/29	4.6	- -	4.7

(a) Assuming normal meteorological conditions. (b) No report. (c) Not scheduled. (d) Corrected to natural flow. (e) Aerial snow depth gage, water content estimated. (f) Nearest current data. (g) Partly estimated. (h) 1953–67 adjusted average. (i) 1953–67, 15 year average. (j) Telephonic report – data not confirmed. (k) Data from PP&L Co. or USBR records. (m) Average for 5 or more years in base period.

USDA-SCS-PORTLAND, OREG. 1969

WSFB-X7C-N

BASIC DATA SUPPLEMENT 3

JANUARY 1, 1973

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precip-itation	Last Year	Average +
Camas Creek	5825	From 11/30 to 12/29	3.57	4.60	
County Line (Umatilla County-Starky Hdqs.)	4800	From 11/16 to 12/29	2.90	3.90	
Quartz Mtn. Summit (Lake County)	5300	From 12/1 to 12/29	3.20	--	
Taylor Butte (Klamath County)	5040	From 10/21 to 12/27	4.83	--	

USDA-SCS-PORTLAND, OREG. 1969

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV

OWYHEE, MALHEUR WATERSHEDS (11)

Owyhee River

	Antelope Ridge (Ida)	20	8S	1E	5900
	Battle Creek (Ida)	10	11S	1E	5700
	Bear Creek (Nev)	31	46N	58E	7800
	Big Bend (Nev)	30	45N	56E	6700
	Blue Mtn Pass	31	37S	42E	5290
	Buckskin, Lower (Nev)	25	45N	39E	6700
	Buckskin, Upper (Nev)	11	45N	39E	7200
	Bull Basin (Ida)	29	12S	5W	5600
	Columbia Basin (Nev)	31	44N	53E	6650
	Disaster Peak (Nev)	8	47N	34E	6500
	Fawn Creek (Nev)	2	45N	52E	7000
		4	33S	33E	7900
	Fish Creek	9	30S	38E	4450
	Folly Farm Summit	33	46N	58E	6800
	Fox Creek (Nev)	31	43N	54E	6700
	Fry Canyon (Nev)	31	45N	56E	6600
	Gold Creek (Nev)	22	44N	39E	7800
	Granite Peak (Nev)	31	8S	2W	5800
	Hyde Pasture (Ida)	18	42N	53E	6800
	Jack Creek, Lower (Nev)	9	42N	53E	7250
	Jack Creek, Upper (Nev)	28	42N	53E	8420
	Jack Peak (Nev)	2	30S	46E	4390
	Jordan Valley	20	45N	53E	6700
	Laurel Draw (Nev)	2	40S	47E	5650
	Lookout Butte	27	40S	44E	6440
	Louse Canyon	18	44N	40E	6700
	Martin Creek (Nev)	10	46N	54E	7000
	Merritt Mountain (Nev)				

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV
16H3AP	Midas (Nev)	18	39N	46E	7200
16G7MP	Mud Flat (Ida)	34	9S	2W	5500
17G5a	Oregon Canyon		8	40S	40E	6950
17H6a	Quinn Ridge (Nev)		9	47N	41E	6300
16G11a	Red Canyon (Ida)	32	11S	4W	6650
15H6MP	Rodeo Flat (Nev)	36	43N	53E	6800
15H3A	76 Creek (Nev)	6	44N	58E	7100
16F3AP*	Silver City (Ida)	8	5S	3W	6400
18G1MPA	Silvies	35	32S	33E	6900
16G1P	South Mountain No.2 (Ida)	10	8S	5W	6340
15H19a	Stag Mountain (Nev)	32	41N	58E	7800
16F6a	Succor Creek (Ida)	25	3S	5W	6100
15H9MP	Taylor Canyon (Nev)	35	39N	53E	6200
16H7a	Toe Jam (Nev)	29	40N	50E	7700
15H8	Tremewan Ranch (Nev)	9	39N	55E	5700
16G4MA	Triangle (Ida)	25	7S	3W	5150
18G5a	Trout Creek	10	41S	36E	7800
18G7a	"V" Lake	31	35½S	32½E	6600
16G12a	Vaught Ranch (Ida)	10	11S	1W	5950
16G13a	War Eagle (Ida)	20	5S	3W	7700

Malheur River

18E16MP	Blue Mountain Springs	21	15S	35E	5900
18F6a	Buck Pasture	28	29S	35E	5300
18E21a	Bully Creek	11	17S	37E	5300
18F7a	Call Meadows	29	20S	33E	5340
17F2a	Cottonwood-Indian	3	19S	39E	4320
18E19M	Crane Prairie	24	16S	34E	5375

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV
18E20	Eldorado Pass	20	14S	38E	4600
18E26a	Flag Prairie	32	16S	36E	4750
18E18	Lake Creek	10	16S	33½E	5200
18E22a	Logan Valley	13	16S	33½E	5100
18F1	Rock Spring	23	18S	32E	5100
18E32P*	S. Fk. Willow Cr.	2	16S	37E	5500
18F4P	Stinking Water	34	21S	34E	4800

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS (12)

Burnt River

18E13M	Blue Mountain Summit	6	12S	36E	5098
17E1MP	Dooley Mountain	32	11S	40E	5430
18E20	Eldorado Pass	20	14S	38E	4600
18E8	Gold Center	21	9S	36E	5340
18E9P	Tipton	34	10S	35E	5100

Powder River

18E1P	Anthony Lake	18	7S	37E	7125
18E5	Bourne	33	8S	37E	5800
17E1MP	Dooley Mountain	32	11S	40E	5430
18E3	Eilertson Meadows	18	8S	38E	5400
18E8	Gold Center	21	9S	36E	5340
18E6A	Goodrich Lake	4	9S	38E	6775
18E29	Intake House	5	8S	38E	4930
17012m	Ladd Summit	5	5S	39E	3730

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV
18E23	Little Alps	10	7S	37E	6200
18E30	Little Antone	1	7S	37E	5000
18E28	Power Plant	33	7S	38E	3990
1707P	Taylor Green	3	6S	42E	5740

Pine Creek

1708	Schneider Meadows	35	6S	45E	5400

Grande Ronde River

1701	Aneroid Lake No. 1	16	4S	45E	7480
1702P	Aneroid Lake No. 2	16	4S	45E	7300
18E1P	Anthony Lake	18	7S	37E	7125
17010a	Bald Mountain	14 & 15	4S	41E	6700
1809	Beaver Reservoir	8	5S	37E	5150
1808P	County Line	28	4S	34E	4800
1806P	Lucky Strike	28	3S	32E	5050
1805	Meacham	24	1S	35E	4300
18020	Meacham Snow Pillow	35	1S	35E	4150
17013a	Mirror Lake	34	4S	44E	8200
1706M	Moss Spring	28	3S	41E	5850
1807	Schoolmarm	28	4S	34E	4775
17011a	Standley	21	2S	42E	7400
1707P	Taylor Green	3	6S	42E	5740
1803M	Tollgate	32	4N	38E	5070
17016a	TV Ridge No. 2	12	2S	43E	7000

Imnaha River

1701	Aneroid Lake No. 1	16	4S	45E	7480
1702P	Aneroid Lake No. 2	16	4S	45E	7300
17014a	Big Sheep	33	4S	46E	6200

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS (13)

Umatilla River

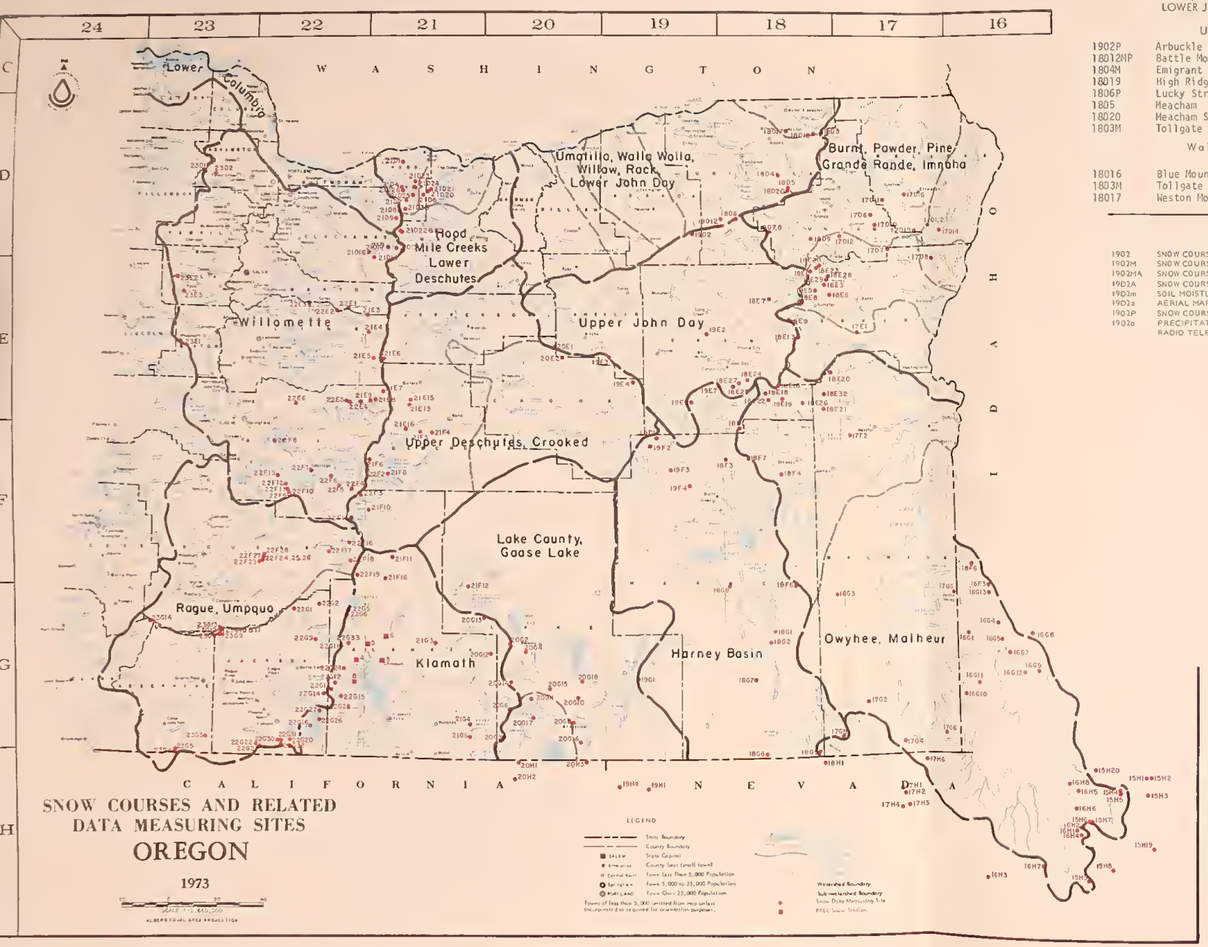
1902P	Arbuckle Mountain	33	4S	29E	5400
18012MP	Battle Mountain Summit	29	3S	31E	4340
1804M	Emigrant Springs	29	1N	35E	3925
18019	High Ridge Pillow	31	3N	38E	4980
1806P	Lucky Strike	28	3S	32E	5050
1805	Meacham	24	1S	35E	4300
18020	Meacham Snow Pillow	35	1S	35E	4150
1803M	Tollgate	32	4N	38E	5070

Walla Walla River

18016	Blue Mountain Camp	35	4N	37E	4300
1803M	Tollgate	32	4N	38E	5070
18017	Weston Mountain	25	4N	35E	2700

LEGEND

1902	SNOW COURSE ONLY
1902M	SNOW COURSE AND SOIL MOISTURE
1902MA	SNOW COURSE, SOIL MOISTURE AND AERIAL MARKER
1902A	SNOW COURSE AND AERIAL MARKER
1902m	SOIL MOISTURE ONLY
1902a	AERIAL MARKER ONLY
1902P	SNOW COURSE AND PRECIPITATION GAGE
1902p	PRECIPITATION GAGE ONLY
	RADIO TELEMETRY



SNOW COURSES AND RELATED DATA MEASURING SITES
OREGON
1973

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE USDA SCS PORTLAND OREG 1973 M7-0-22026-L

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV

Willow Creek

1902P	Arbuckle Mountain	33	4S	29E	5400
18E1P	Anthony Lake	18	7S	37E	7125

UPPER JOHN DAY WATERSHEDS (14)

Upper John Day River

1902P	Arbuckle Mountain	33	4S	29E	5400
18012MP	Battle Mountain Summit	29	3S	31E	4340
18E16MP	Beech Creek Summit	32 & 33	11S	30E	4650
18E13M	Blue Mountain Springs	21	15S	35E	5900
19E3MP	Blue Mountain Summit	6	12S	36E	5098
18E27a	Deer	14	13S	23E	5670
18E8	East Fork Canyon	15	15S	32E	5700
18E24a	Gold Center	21	9S	36E	5340
19E9P	Indian Cr. Butte	5	15S	33E	6550
1806P	Izee Summit	28	16S	29E	5293
20E1MP	Lucky Strike	28	3S	32E	5050
20E2	Marks Creek	25	12S	19E	4540
18E7a	Ochoco Meadows	21	13S	20E	5200
1807	Olive Lake	14	9S	34E	6000
1807	Schoolmarm	28	4S	34E	4775
19F1M*	Snow Mountain	1	19S	26E	6220
19E7M	Starr Ridge	20	15S	31E	5150
18E9P	Tipton	34	10S	35½E	5100
18E25MP	Williams Ranch	20	15S	32E	4500

UPPER DESCHUTES, CROOKED WATERSHEDS (15)

Upper Deschutes River

21F8	Caldwell Ranch	30	21S	8E	4400
22F3	Cascade Summit	7	23S	6E	4880
21F11	Chemult	21	27S	8E	4760
21E6	Hogg Pass	24	13S	7½E	4755
21F4	Hungry Flat	29	18S	11E	4400
21F6*	Irish-Taylor	25	20S	6E	5500
21F10	New Crescent Lake	11	24S	6E	4800
21E16	New Outchman Flat #2	21	18S	9E	6400
21F3	Tangent	28	18S	10E	5400
21E15	Three Creeks Butte	27	16S	9E	5200
21E13*	Three Creeks Meadows	34	16S	9E	5650
22F2P	Waldo Lake	15	21S	6E	5600
22F14*	Willamette Pass	33	24S	5½E	5600

Crooked River

19E3MP	Oerr	14	13S	23E	5670
20E1MP	Marks Creek	25	12S	19E	4540
20E2	Ochoco Meadows	21	13S	20E	5200
19F1M	Snow Mountain	1	19S	26E	6220
19E4	Tamarack	8	15S	25E	4800

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS (16)

Hood River

2106P	Brooks Meadows	2	2S	10E	4300
21025M	Cooper Spur	6	2S	10E	3490
2101	Greenpoint Reservoir	27	2N	9E	3200
21020	Knebal Springs	31	1S	11E	3850
21023	Parkdale	5	1S	10E	1770
2108*	Phlox Point	7	3S	9E	5400
2104	Red Hill	20	1S	9E	4400
2109	Still Creek	25	3S	8½E	3670
21028	Switchback	28	1S	9E	3255
2107P	Tilly Jane	15	2S	9E	6000
21021	Ulrich Ranch Junction	28	1S	11E	3350
21030	Umbrella Falls	3	3S	9E	5400
21024	Upper Valley	20	1S	10E	2530

Mile Creeks - Masier Creek

2106P	Brooks Meadows	2	2S	10E	4300
21020	Knebal Springs	31	1S	11E	3850
21021	Ulrich Ranch Junction	28	1S	11E	3350

Lower Deschutes River

21012	Clear Lake	29	4S	9E	3500
21022	Clear Lake Experimental	29	4S	9E	3500
21E6	Hogg Pass	24	13S	7½E	4755

LOWER COLUMBIA WATERSHEDS (17)

Sandy River

2108*	Phlox Point	7	3S	9E	5400
2109	Still Creek	25	3S	8½E	3670

WILLAMETTE WATERSHEDS (18)

Clackamas River

21013	Clackamas Lake	35	5S	8½E	3400
21012	Clear Lake	29	4S	9E	3500
21016	Lake Harriet	4	6S	7E	2045
21014P*	Peavine Ridge	14 & 15	6S	7E	3500
2108*	Phlox Point	7	3S	9E	5400
2109	Still Creek	25	3S	8½E	3670
21017	Timothy Lake	26	5S	8E	3295

Santiam River

22E1	Detroit (City)	7	10S	5E	1610
22E2	Detroit Dam	7	10S	5E	1580

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV
21E6	Hogg Pass	24	13S	7½E	4755
21E4	Marion Forks	29	11S	7E	2600
22E3	Mill City	29	9S	3E	826
21E5	Santiam Junction	14	13S	7E	3750
21E3	Whitewater Bridge	20	10S	7E	2175

McKenzie River

21E8	Dead Horse Grade	13	16S	7E	3700
22E4	Lost Creek Ranch	19	16S	7E	1956
21E7	McKenzie	35	15S	7½E	4800
22E5	McKenzie Bridge	13	16S	5E	1372
22E6	Vida	28	16S	2E	800
21E9	White Branch Slide	15	16S	7E	2700

Middle Fork Willamette River

22F3	Cascade Summit	7	23S	6E	4880
22F8	Lookout Point Dam	13	19S	1W	750
22F6	McCredie Springs	36	21S	4E	2120
22F7	Oakridge	16	21S	3E	1310
22F5	Railroad Overpass	21	22S	5E	2750
22F4	Salt Creek Falls	32	22S	5½E	4000
22F2P	Waldo Lake	15	24S	6E	5600
22F14*	Willamette Pass	33	24S	5½E	5600

Coast Fork Willamette River

22F9	Champion	12	23S	1E	4500
22F10	Golden Curry Creek	1	23S	1E	3136
22F13	Layng Creek R.S.	31	21S	1E	1200
22F12	Lund Park	22	22S	1E	1740
22F11	Weaver Creek	35	22S	1E	2440

Mary's River

23E1	Mary's Peak	21	12S	7W	3620

Luckiamute River

23E2	Laurel Mountain	6	8S	7W	3000
23E3	Valsetz Summit	3	9S	7W	2600

Tualatin River

2302*	Seine Creek	34	1N	5W	2000
2301*	Saddle Mountain	25	1N	6W	3250

ROGUE, UMPQUA WATERSHEDS (19)

Rogue River

23G4P	Althouse	17	41S	7W	4530
22G6	Annie Spring	19	31S	6E	6018
22G28	Beaver Dam Creek	1	38S	4E	5100
22G21P	Big Red Mountain	31	40S	1W	6250
22G13P	Billie Creek Divide	30	36S	5E	5300
22G30	Calibon	16	40S	1E	6500
22G27	Deadwood Junction	8	38S	4E	4600
22F19	Diamond-Crater Summit	34	28S	6E	5800
22G14P	Fish Lake	3	37S	4E	4665
22G12	Fourmile Lake	9	36S	5E	6000
23G3	Grayback Peak	9	40S	5W	6000
22G26	Howard Prairie	32	38S	4E	4500
22G16	Hyatt Prairie Reservoir	15	39S	3E	4900
22G22	Little Red Mountain	25	40S	2W	6500
22G31	Mt. Ashland Switchback	15	40S	1E	6400
23G14	Mule Creek	8	32S	9W	3680
23G5	Page Mountain	5	41S	7W	4045
22G5	Park Headquarters	8	31S	6E	6550
22G11	Seven Lakes No. 2	26	33S	5E	6200
22G2	Silver Burn	30	30S	4E	3720
22G20	Siskiyou Summit	17	40S	2E	4630
22G32	Ski Bowl Road	22	40S	1E	6000
22G9	South Fork Canal	12	33S	3E	3500
22G1	Whaleback	4	31S	2E	5025

Umpqua River

22F9	Champion	12	23S	1E	4500
22F18P	Diamond Lake	29	27S	6E	5315
23G8	King Mountain No. 1	5	33S	4W	4500
23G9	King Mountain No. 2	4	33S	4W	4000
23G10	King Mountain No. 3	33	32S	4W	3648
23G11	King Mountain No. 4	33	32S	4W	3049
23G12	King Mountain No. 5	29 & 28	32S	4W	2380
23G13	King Mountain No. 6	20	32S	4W	1820
22F16	North Umpqua	19	26S	6E	4215
22F23	Red Butte No. 1	36	27S	2W	4560
22F24	Red Butte No. 2	30	27S	1W	4000
22F25	Red Butte No. 3	30	27S	1W	3500
22F26	Red Butte No. 4	30	27S	1W	3000
22F27	Red Butte No. 5	20	27S	1W	2500
22F28	Red Butte No. 6	17	27S	1W	2000
22F17	Trap Creek	1	27S	4E	3800
22G1	Whaleback	4	31S	2E	5025

KLAMATH WATERSHEDS (110)

Klamath River

22G6	Annie Spring	19	31S	6E	6018
22G13P	Billie Creek Divide	30	36S	5E	5300
21F11	Chemult	21	27S	8E	4760
22G24*	Cold Springs Camp	12	35S	5E	6100
20G12a	Crazyman Flat	9	34S	15E	6100
20H2a	Crowder Flat (Cal)	30	47N	11E	5200
22F19	Diamond-Crater Summit	34	28S	6E	5800
21F18	Diamond Lake Jct. (97)	1	29S	7E	4600

NUMBER	NAME	LOCATION SEC	TWP	RGE	ELEV
21G6a	Dog Hollow	1	40S	14E	4900
20G14a	Finley Corrals	11	36S	16E	6000
22G12	Fourmile Lake	9	36S	5E	6000
21G4P	Gerber	12	39S	13E	4850
22G26	Howard Prairie	32	38S	4E	4500
22G16	Hyatt Prairie Reservoir	15	39S	3E	4900
22G15	Lake of the Woods	11	37S	5E	4960
22G5	Park Headquarters	8	31S	6E	6550
20G6MP	Quartz Mountain	2	38S	16E	5320
22G11	Seven Lakes No. 2	26	33S	5E	6200
22G33	Seven Mile	20	33S	6E	5725
20H1a	State Line (Cal)	21	48N	11E	5750
20G9AP	Strawberry	4	40S	16E	5760
20G2AP	Summer Rim	23	33S	16E	7100
21G3P	Sycan Flat	25	31S	14E	5500
21G3P	Taylor Butte	21	33S	11E	5100

Pacific Power and Light Company's Snow Station

3	Chiloquin (PP&L)	34	34S	7E	4187
4	Crystal (PP&L)	26	34S	6E	4200
5	Fort Klamath (PP&L)	22	33S	7½E	4150
8	Harriman Lodge (PP&L)	3	36S	6E	4200
6	Kirk (PP&L)	1	33S	7E	4533

LAKE COUNTY, GOOSE LAKE WATERSHEDS (111)

Goose Lake

20G15a	Bear Flat Meadow	27	36S	19E	5900
20G8MP	Camas Creek	5	39S	21E	5720
20G11A	Cox Flat	16	37S	18E	5750
20H2a	Crowder Flat (Cal)	30	47N	11E	5200
20H3a	Oismal Swamp (Cal)	31	48N	16E	7200
20G17a	Patton Meadow	28	38S	18E	6800
20G6MP	Quartz Mountain	2	38S	16E	5320
20H1a	State Line (Cal)	21	48N	11E	5750
20G9AP	Strawberry	4	40S	16E	5760
20G16a	Willow Creek	13	40S	21E	6020

Abert Lake

20G15a	Bear Flat Meadow	27	36S	19E	5900
20G18ap	Colvin Creek	12	36S	21E	6550
20G11A	Cox Flat	16	37S	18E	5750
20G14a	Finley Corrals	11	36S	16E	6000
20G4	Hill Creek	1	34S	17E	6200
20G6MP	Quartz Mountain	2	38S	16E	5320
20G10a	Sherman Valley	15	37S	21E	6600

Summer Lake

20G2AP	Summer Rim	23	33S	16E	7100

Silver Lake

21F2P	Silver Creek	2S & 26	29S	13E	4900
20G13a	Sycan Flat	25	31S	14E	5500

Warner Lake

20G8MP	Camas Creek	5	39S	21E	5720
20H3a	Oismal Swamp (Cal)	31	48N	16E	7200
19G1a	Hart Mountain	1	36S	25E	6350
20G10a	Sherman Valley	15	37S	21E	6600
20G16a	Willow Creek	13	40S	21E	6020

Guano Lake

19H1	Bald Mountain (Nev)	17	45N	21E	6720
19G1a	Hart Mountain	1	36S	25E	6350
19H4a	Little Bally Mt. (Nev)	8	45N	19E	6600

HARNEY BASIN WATERSHED (112)

Silvies River - Silver Creek

18F7a	Call Meadows	29	20S	33E	5340
19F2	Ointment Lake	28	19S	26E	5600
19F3	Emigrant Butte	14	21S	27E	5000
18F3P	Idlewild Camp	27	20S	31E	5200
19E9P	Izee Summit	28	16S	29E	5293
18F1	Rock Spring	23	18S	32E	5100
19F1M*	Snow Mountain	1	19S	26E	6220
19E7M	Starr Ridge	20	15S	31E	5150
18F4P	Stinking Water	34	21S	34E	4800
19F4m	Willow-Bald	19	22S	29E	5000

Donner Und Blitzen River

18F6a	Buck Pasture	28	29S	35E	5300
18G2MPA	Fish Creek	4	33S	33E	7900
19G1a	Hart Mountain	1	36S	25E	6350
18G1MPA	Silvies	35	32S	33E	6900
18G7a	"V" Lake	31	3S	S 32½E	6600

Trout and Whitehorse Creeks

18G6a	Denio Creek	14	41S	34E	6000
18H1	Disaster Peak (Nev)	8	47N	34E	6500
17G5a	Oregon Canyon	8	40S	40E	6950
18G5a	Trout Creek	10	41S	38E	7800

Harney Lake

18G8a	Buckskin Lake	25	29S	30E	5200

Map and Index to OREGON SNOW COURSES

The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE
- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon State Engineer and Corps of State Watermasters
- Oregon State Highway Engineers
- Soil and Water Conservation Districts of Oregon

COUNTY
- Douglas County Water Resources Survey

FEDERAL
- Department of Agriculture
  - Cooperative Extension Service
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - NOAA, National Weather Service
- Department of the Interior
  - Bonneville Power Administration
  - Bureau of Land Management
  - Bureau of Reclamation
  - Fish and Wildlife Service
  - Geological Survey
  - National Park Service
- Department of National Defense
  - Corps of Army Engineers

PUBLIC UTILITIES
- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES
- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS
- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale-Oregon Irrigation District
- Warmsprings Irrigation District

PRIVATE ORGANIZATIONS
- The Crag Rats, Hood River, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1218 S.W. WASHINGTON ST.
PORTLAND, OREGON 97205

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGR-101

U.S. MAIL

FIRST CLASS MAIL

Return this entire sheet to above address, if you do NOT wish to receive this material ☐, or if change of address is needed ☐ (indicate changes in address below, including ZIP code).

FEDERAL - STATE - PRIVATE

COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"The Conservation of Water begins with the Snow Survey"

USDA NATIONAL AGRICULTURAL LIBRARY
CURRENT SERIAL RECORD
BELTSVILLE, MARYLAND 20705